

Case No. 15-1933

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

AFFINITY LABS OF TEXAS, LLC,

Patent Owner-Appellant,

v.

**SAMSUNG ELECTRONICS CO., LTD; SAMSUNG
ELECTRONICS AMERICA, INC.; HTC CORP., and
HTC AMERICA, INC.,**

Petitioners-Appellees.

On Appeal from the United States Patent and Trademark Office,
Patent and Trademark Appeal Board,
Case Nos. IPR2014-00209 and IPR2014-00212

**OPENING BRIEF FOR APPELLANT
AFFINITY LABS OF TEXAS, LLC**

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October 27, 2015

Case: 15-1933 Document: 3 Page: 1 Filed: 09/03/2015 Form 9
FORM 9. Certificate of Interest

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Affinity Labs of Texas, LLC V. Samsung Electronics Co., Ltd., et al.

Case No. 15-1933

CERTIFICATE OF INTEREST

Counsel for the (petitioner) (appellant) (respondent) (appellee) (amicus) (name of party)
Affinity Labs of Texas, LLC certifies the following (use "None" if applicable; use extra sheets
if necessary):

1. The full name of every party or amicus represented by me is:

Affinity Labs of Texas, LLC

2. The name of the real party in interest (Please only include any real party in interest
NOT identified in Question 3. below) represented by me is:

The party named in the caption is the real party in interest.

3. All parent corporations and any publicly held companies that own 10 percent of the
stock of the party or amicus curiae represented by me are listed below. (Please list each party
or amicus curiae represented with the parent or publicly held company that owns 10 percent
or more so they are distinguished separately.)

None

4. ☒ The names of all law firms and the partners or associates that appeared for the party
or amicus now represented by me in the trial court or agency or are expected to appear
in this court (and who have not or will not enter an appearance in this case) are:

Robins Kaplan LLP: Ryan M. Schultz, Emily E. Niles, and Thomas R. DeSimone
Trop, Pruner & Hu, P.C.: Mark Rozman Trop; Timothy G. Newman.

9/3/2015

Date

/s/Ryan M. Schultz

Signature of counsel

Please Note: All questions must be answered

cc: Counsel of record

Ryan M. Schultz

Printed name of counsel

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STATEMENT OF RELATED CASES

Pursuant to Federal Circuit Rule 47.5, counsel for Appellant, Affinity Labs of Texas, LLC (“Affinity”), states as follows:

(a) No other appeal in or from the same proceeding was previously before this or any other appellate court; and

(b) The Appellees are defendants in the following pending cases that will be directly affected by this Court’s decision in the pending appeal: *Affinity Labs of Texas, LLC v. Samsung Electronics Co., Ltd. et al.*, 1:14-cv-2717, 14-cv-2966 (N.D. Cal.) (transferred from *Affinity Labs of Texas, LLC v. Samsung Electronics Co., Ltd.*, 1:12-cv-557 (E.D. Tex.)). In addition, the Patent Owner has filed a notice of appeal from the Final Written Decision in IPR2014-00407 and joined proceeding IPR2014-00408, which may be impacted by this Court’s decision because the proceedings involve the related U.S. Patent No. 8,359,007 and the same parties, Affinity, as patent owner/appellant, and Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., HTC Corp. and HTC America, Inc. as petitioners/appellees. Three additional pending *inter partes* review proceedings may be impacted by this court’s decision—IPR2014-01181, IPR2014-01182, and IPR2014-01184—and involve related U.S. Patent No. 8,532,641 and Affinity, as patent owner/appellant, and Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc., as petitioners.

JURISDICTIONAL STATEMENT

Pursuant to 35 U.S.C. § 141(c), Affinity appeals from the Final Written Decision of the Patent Trial and Appeal Board (“PTAB” or “Board”) of the United States

Patent and Trademark Office (“USPTO”) under 35 U.S.C. § 318(a), entered on May 13, 2015 in the joined *inter partes* review proceedings, IPR2014-00209 and IPR2014-00212.

Affinity timely filed a notice of appeal on July 9, 2015 pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.3(a). Therefore this Court has jurisdiction over this appeal under 35 U.S.C. §§ 141, 319 and 28 U.S.C. § 1295(a)(4)(A).

STATEMENT OF THE ISSUES

1. Whether *inter partes* review proceedings violate the separation of powers and unconstitutionally deprive the Patent Owner of its right to adjudicate its private patent rights in an Article III court and its right to a jury trial under the Seventh Amendment.

2. Whether the Board erred in finding claims 16, 19, and 20 of U.S. Patent No. 7,953,390 (“the ’390 patent”) unpatentable under 35 U.S.C. § 103 over the combination of Galensky and Bork.

2. Whether the Board erred in denying Patent Owner’s request for leave to file a motion to strike Petitioners’ improper supplemental reply evidence in the Order entered on December 11, 2014 (Paper No. 40).

3. Whether the Board erred in denying Patent Owner’s request to file a Motion to Supplement the record with evidence refuting the improper new evidence submitted by Petitioners on Reply and by failing to consider that evidence in the Final Written Decision.

STATEMENT OF THE CASE

This is an appeal of the Final Written Decision in IPR2014-00209 and IPR2014-00212. A5-24. Facts relevant to the issues identified above are as follows.

I. The *Inter Partes* Review Proceedings Before the PTAB

Appellees Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., HTC Corp., and HTC America, Inc. (collectively “Petitioners”) filed Corrected Petitions in IPR2014-00209 and IPR2014-00212 requesting review of claims 16, 19, and 20 of U.S. Patent No. 7,953,390 (“the ’390 patent”), owned by Affinity Labs of Texas, LLC (“Patent Owner” or “Affinity”). A54-187. The Board instituted *inter partes* review in IPR2014-00209 on the following ground: whether claims 16, 19, and 20 are unpatentable under 35 U.S.C. § 103 as obvious over Galensky and Bork. A188-202. The Board instituted *inter partes* review in IPR2014-00212 on the following ground: whether claims 16, 19, and 20 are unpatentable under 35 U.S.C. § 103 as obvious over Hitson, Bork, and Fuller. A203-219.¹

Following institution, Affinity submitted Patent Owner Responses contesting Petitioners’ arguments in both proceedings. A220-295. Petitioners submitted a Reply brief and 35 new exhibits, including a new 57-page Declaration from Petitioners’ Expert Dr. Quackenbush. A296-321, *compare* A57-58 and A124-125 to A299-304. The Reply brief included new arguments, not previously made by the Petitioners, which

¹ Affinity does not waive any rights to challenge the Board’s claim construction decisions as they relate to different proceedings involving related patents and/or similar claim terms.

were necessary to make Petitioners' *prima facie* case of obviousness. *See* A310-317. In particular, the Reply brief made new arguments distinguishing slow charging and fast charging—an important distinction not addressed in the Petition. A313-315. Patent Owner sought relief from the Board to address the improper new arguments and evidence submitted in the Petitioners' Reply during a conference call on December 2, 2014. A1-2. The Board denied Affinity any relief in its December 11, 2014 Order stating that "[d]uring the preparation of the Final Written Decision, the panel will be able to distinguish between information supplied in rebuttal to Patent Owner's Response and information that is supplied to supplement the Petition." A1-4. The Final Written Decision did not address the issue of whether Petitioners' Reply arguments and evidence were improper. *See* A5-24. Ultimately, the Board relied on one of the Petitioners new arguments regarding slow charging to make its final decision rendering claims 16, 19, and 20 of the '390 patent obvious. A10-17, A19.

The day before the Oral Hearing, held on March 10, 2015, Affinity emailed the Board to request permission to file a motion to supplement the record with evidence refuting Petitioners' new Reply argument and evidence regarding slow charging. A322, A328. Affinity had obtained a declaration to rebut Petitioners' new argument regarding the Elite MP3 player and its inability to be recharged using USB. A328-334. The Board denied the request to file a motion to supplement and refused to consider the evidence refuting Petitioners' arguments. A334, A399-401. The Board did not mention this evidence in its Final Written Decision, which stated:

Based on the foregoing, and upon review of the record as a whole, we are not persuaded by Patent Owner's argument that Bork's USB 1.1-compliant interface and cable would have been incapable of recharging the claimed portable devices of the '390 patent.

A13, *see generally* A10-17. At this hearing, the parties presented their arguments regarding the instituted grounds, including the combination of Galensky and Bork. *See* A326, A343-355, A357-359, A373-381, A388-395.

Ultimately, the Board decided that Petitioners failed to meet their burden of proving obviousness of claims 16, 19, and 20 based on the combination of Hitson, Bork, and Fuller, and Petitioners did not cross-appeal on this issue. A19-21. However, the Board found claims 16, 19, and 20 unpatentable under 35 U.S.C. § 103 as obvious over Galensky and Bork. A10-19, 23.

II. The Subject Matter of the '390 Patent

The '390 patent is entitled, "Method for Content Delivery" and is a continuation in a chain of patents with a priority date of March 28, 2000. A25-A53. The '390 patent describes a unique system for content delivery, including, for example, delivery of songs, video, on-line radio stations, on-line broadcasts, or text. A45. In this system, one electronic device (in one embodiment, a car audio system) works with a separate portable media player (for example, a personal digital assistant (PDA) or a cellular phone) in order for a user to select and receive media content. A44-52. The invention in the '390 patent represented a substantial improvement over portable media player systems that existed at the time of invention.

The portable media player of the '390 patent incorporates a physical interface that facilitates its interconnection with the second electronic device. This physical interface and related cable serve dual roles. First, a cable connected to the physical interface of the portable media player permits the rechargeable battery of the portable media player to be recharged via the electronic device's recharging circuit. A49, A52. Second, the cable connected to the physical interface of the portable media player is also capable of transferring data between the portable media player and the electronic device. *Id.* This dual functionality allows for the streaming media being received by the portable media player to be transmitted to the second electronic device. At the same time, the interface and cable ensure that the portable media player responsible for providing the streaming content does not run low on power.

A further advantage of the system claimed in the '390 patent was that it improved the way that content can be transferred to a portable media player. For example, the '390 patent disclosed novel techniques for how selected content could be segmented, formatted, and transmitted, to a portable device in order to achieve a desired and timely delivery. A46. The invention includes several ways of formatting content to optimize transmissions to a portable device, including by segmenting, compressing, modifying, or storing content data in various different compressed and uncompressed multimedia formats. A45. The various portions of a selected media can be stored at respective network locations with network addresses included in a playlist, and the portable device can make requests for the sequential portions, for example, by

using HTML GET. The '390 patent also discloses various techniques for improving how content is transmitted. For example, information can be communicated via an asynchronous channel to an electronic device. A46. And, an electronic device as claimed in the '390 patent can also have the ability to switch between a set of data rates by choosing to receive individual segmented portions of content, where each segment is formatted for different data rates. A45-46. For example, a device may monitor its own buffer and request that media be transmitted to the portable media player at a high data rate until enough information has been wirelessly communicated and buffered into the memory of the portable media player. A46. Upon communication of a certain percentage of the selected information, lower communication rates may then be used when communicating additional selected information. *Id.*

III. The Prior Art

A. Bork

Petitioners relied on U.S. Patent No. 6,633,932 (“Bork”) entitled “Method and Apparatus for Using a Universal Serial Bus to Provide Power to a Portable Electronic Device,” filed on September 14, 1999, and issued October 14, 2003. A1825-1840. Bork was considered by the Office during the original prosecution of the '390 patent and appears on the face of the '390 patent. A28, A1707-1709. Thus, the teachings in Bork relied upon by Petitioners had already been considered by the Office, including

the use of a universal serial bus (“USB”) port and cable to connect a computer and a portable device.

The invention claimed in Bork comprises a method and apparatus for using a USB in a computer as a power source for a portable electronic device. A1835. Bork incorporates by reference Universal Serial Bus Specification Revision 1.1, September 1998, for the technical capabilities of the cable. A1837; *see* A1841-2167. Like Bork, USB Spec. Rev. 1.1 also appears on the face of the ’390 patent and was considered by the Office. A33, A1354. The USB 1.1 Specification states that the USB cable may provide one unit load of power, or 100 mA. A1998. At a maximum, the USB cable could provide five unit loads, or 500mA. *Id.* Bork states that voltage to be supplied over the USB cable is five volts. A1837. USB Spec. Rev. 1.1 has no discussion related to recharging a device using USB—USB Spec. Rev. 1.1 only discusses powering a device using USB. A1874, A1990-1998.

The USB cable in Bork includes electronic circuitry for converting the voltage level supplied by the USB to a voltage level usable by the portable electronic device to power, but not to recharge the device. A1835. Bork generally alludes to the fact that it could be used in association with cellular phones, “personal digital assistants ‘PDAs’, pagers” and “electronic games/toys.” A1838. However, the specification of Bork does not incorporate by reference any specific models of these devices.

B. Galensky

Petitioners also relied on U.S. Patent No. 6,845,398 (“Galensky”) entitled “Wireless Multimedia Player,” filed on August 2, 1999 and issued to Galensky on January 18, 2005. A1816-1824. The problem that Galensky purports to solve is the inconvenience of connecting a portable media player to a computer in order to retrieve media files. A1819. The specification indicates that prior art solutions required portable media players that utilized the user’s computer as an intermediate connection between the portable device and a multimedia server where the files were stored for retrieval. *Id.*

Galensky seeks to mitigate this inconvenience by providing a wireless portable media player capable of receiving, playing, and storing streamed media files over a wireless telecommunications network from a media server. A1820. Components of the portable media player include an antenna and a transceiver for transmitting or receiving information over a wireless network. *Id.* The portable media player disclosed in Galensky may be powered by a lithium ion rechargeable battery. *Id.* The user of the portable media player described in Galensky may access media stored in the memory of the device, or the user may establish a connection to the appropriate multimedia server via a wireless network. A1820-1821. After accessing the network, the user may then view a list of multimedia files available on the multimedia server. A1821. Upon selecting the desired media, the transceiver transmits the selection wirelessly to the multimedia server, which then streams the desired media directly to the device. *Id.* The

portable media player disclosed in Galensky therefore does not require a wired connection to a home computer in order to obtain desired media files.

Similar to Bork, Galensky is duplicative of the prior art considered by the Office and fails to provide new teachings not previously considered by the Office during examination. For example, many of teachings relied upon in Galensky were disclosed in U.S. Patent No. 6,405,256 (“the ’256 patent”), entitled “Data streaming using caching servers with expandable buffers and adjustable rate of data transmission to absorb network congestion.” The ’256 patent is cited on the face of the ’390 patent, and was considered by the Examiner. A27, A970-979. The wireless portable device for receiving and playing multimedia content streamed over a wireless telecommunications network described in Galensky is also duplicative to the teachings of the ’256 patent considered by the Examiner during prosecution.

SUMMARY OF ARGUMENT

First, *inter partes* review proceedings unconstitutionally move adjudication of patent rights from Article III courts to the executive branch in violation of the separation of powers, the Seventh Amendment, and over a century of Supreme Court precedent.

The only authority competent to set a patent aside, or to annul it, or to correct it for any reason whatever, is vested in the courts of the United States, and not in the department which issued the patent.

McCormick Harvesting Mach. Co. v. Aultman, 169 U.S. 606, 608-09 (1898). Patent rights have always been and continue to be private property rights. By creating *inter partes*

review, Congress improperly created an alternate unconstitutional venue for adjudication of patent rights outside of Article III courts. Additionally, patent owners have the right to a jury trial in the adjudication of their patent rights under the Seventh Amendment. *Inter partes* review improperly deprived the Patent Owner of its right to adjudication of its patent rights before a jury. For these reasons, *inter partes* is unconstitutional and the Board's decision must be vacated.

Second, the Board's Final Written Decision finding claims 16, 19, and 20 of the '390 patent obvious, is not supported by substantial evidence because the Board's understanding of the prior art references and the art at the time of the invention was incorrect. Specifically, the Board's three observations regarding the Bork reference and the Final Written Decision based on these observations are not supported by substantial evidence. Accordingly, the Board's decision must be vacated. In addition, the Board failed to provide an adequate explanation of the reasoning or basis for its decision on obviousness.

Third, two of the Board's procedural decisions violated the Administrative Procedure Act because they were arbitrary and capricious decisions that harmed Affinity's ability to defend its patent rights. The Board arbitrarily denied Affinity a remedy for Petitioners' improper arguments and evidence presented in its Reply, for example, by removing those improper arguments and evidence from the record. The Board also denied Affinity's request to make a motion to supplement the evidence in the record with a declaration refuting the evidence improperly presented by

Petitioners' Reply. By arbitrarily and capriciously deciding procedural issues, Affinity was denied its right to fair proceedings under the Administrative Procedure Act, which ultimately deprived Affinity of its patent rights.

STANDARD OF REVIEW

This Court reviews the decisions of the PTAB according to the standards set forth in the Administrative Procedure Act, 5 U.S.C. § 706. "Under that statute, [this Court will] set aside actions of the Board that are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, and set aside factual findings that are unsupported by substantial evidence." *In re Sullivan*, 362 F.3d 1324, 1326 (Fed. Cir. 2004).

The Board's determination of obviousness is a question of law, based on underlying factual findings. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007). The Board's underlying factual findings unsupported by substantial evidence are set aside. *In re Sullivan*, 362 F.3d at 1326. "A finding is supported by substantial evidence if a reasonable mind might accept the evidence to support the finding." *K/S Himpp v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1364 (Fed. Cir. 2014). "Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *In re Gartside*, 203 F.3d 1305, 1312 (Fed. Cir. 2000) (internal quotation marks and citation omitted). The Board's ultimate determination on the question of

obviousness is an issue of law reviewed by this Court *de novo*. *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013).

ARGUMENT

I. *Inter partes* review unconstitutionally deprived Affinity of its private patent right in violation the separation of powers and the Seventh Amendment.

This Court must decide the constitutional challenge relating to Article III jurisdiction before reaching any other issue on appeal. *Minesen Co. v. McHugh*, 671 F.3d 1332, 1337 (Fed. Cir. 2012) (“[W]e are generally obligated to resolve jurisdictional challenges first, Supreme Court precedent only requires federal courts to answer questions concerning their Article III jurisdiction—not necessarily their statutory jurisdiction—before reaching other dispositive issues.”); *see also Steel Co. v. Citizens for a Better Environment*, 523 U.S. 83, 95-97, 101 (1998) (“Every federal appellate court has a special obligation to satisfy itself not only of its own jurisdiction, but also that of the lower courts in a cause under review” *Id.* at 95.) (internal quotations omitted).

A. Adjudication of Affinity’s private property right outside of an Article III court is an unconstitutional violation of the separation of powers.

Article III of the Constitution directs that “[t]he judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority.” U.S. Const. art. III, § 2, cl. 1. The separation of power between the judiciary, executive, and legislative branches serves “to protect each branch of government from incursion by the others” and to “protect the individual as well.” *Bond v. United States*, 131 S.Ct. 2355,

2365 (2011). “Article III could neither serve its purpose in the system of checks and balances nor preserve the integrity of judicial decisionmaking if the other branches of the Federal Government could confer the Government’s ‘judicial Power’ on entities outside Article III.” *Stern v. Marshall*, 131 S.Ct. 2594, 2609 (2011).

The boundaries between the judiciary, executive, and legislative branches must be maintained in order to preserve the benefit of the separation of powers.

That is why we have long recognized that, in general, Congress may not “withdraw from judicial cognizance any matter which, from its nature, is the subject of a suit at the common law, or in equity, or admiralty.” *Murray’s Lessee v. Hoboken Land & Improvement Co.*, 59 U.S. 272, 18 How. 272, 284, 15 L. Ed. 372 (1856). When a suit is made of “the stuff of the traditional actions at common law tried by the courts at Westminster in 1789,” *Northern Pipeline*, 458 U.S., at 90, 102 S. Ct. 2858, 73 L. Ed. 2d 598 (Rehnquist, J., concurring in judgment), and is brought within the bounds of federal jurisdiction, the responsibility for deciding that suit rests with Article III judges in Article III courts. The Constitution assigns that job—resolution of “the mundane as well as the glamorous, matters of common law and statute as well as constitutional law, issues of fact as well as issues of law”—to the Judiciary. *Id.*, at 86-87, n. 39, 102 S. Ct. 2858, 73 L. Ed. 2d 598 (plurality opinion).

Stern, 131 S.Ct. at 2609. Only a limited set of rights—those properly within the public rights exception to Article III—may be adjudicated outside of an Article III court in accordance with the separation of powers established by the Constitution. *Murray v. Hoboken Land & Improv. Co.*, 59 U.S. 272, 284 (1856) (“[T]here are matters, involving public rights . . . which congress may or may not bring within the cognizance of the courts of the United States, as it may deem proper.”).

1. Patent rights are private rights.

Supreme Court precedent has made it clear that a patent owner's rights in an issued patent are private property rights.

It has been settled by repeated decisions of [the Supreme Court] that when a patent has received the signature of the Secretary of the Interior, countersigned by the Commissioner of Patents, and has had affixed to it the seal of the Patent Office, it has passed beyond the control and jurisdiction of that office, and is not subject to be revoked or cancelled by the President, or any other officer of the Government. . . It has become the property of the patentee, and as such is entitled to the same legal protection as other property.

The only authority competent to set a patent aside, or to annul it, or to correct it for any reason whatever, is vested in the courts of the United States, and not in the department which issued the patent.

McCormick Harvesting Mach. Co. v. Aultman, 169 U.S. 606, 608-09 (1898) (internal citations omitted). In over one hundred years since *McCormick*, no Supreme Court case has characterized patents differently.

In the latest Supreme Court case to deal with the limited class of rights known as public rights, the *Stern* Court, examined the distinction between private and public rights. *See* 131 S.Ct. 2594 (2011). In its opinion, the Court recognized that “discussion of the public rights exception [has] not been entirely consistent, and the exception has been the subject of some debate” *Id.* at 2611. One requirement that has remained throughout these decisions is that any dispute about a public right occurs “between the Government and persons subject to its authority.” *Id.* at 2612.

[D]ecisions from this Court contrasted cases within the reach of the public rights exception—those arising “between the Government and persons subject to its authority in connection with the performance of

the constitutional functions of the executive or legislative departments”—and those that were instead matters “of private right, that is, of the liability of one individual to another under the law as defined.” *Crowell v. Benson*, 285 U.S. 22, 50, 51, 52 S. Ct. 285, 76 L. Ed. 598 (1932). See *Atlas Roofing Co. v. Occupational Safety and Health Review Comm’n*, 430 U.S. 442, 458, 97 S. Ct. 1261, 51 L. Ed. 2d 464 (1977) (Exception extends to cases “where the Government is involved in its sovereign capacity under . . . [a] statute creating enforceable public rights,” while “[w]holly private tort, contract, and property cases, as well as a vast range of other cases . . . are not at all implicated”); *Ex parte Bakelite Corp.*, 279 U.S. 438, 451-452, 49 S. Ct. 411, 73 L. Ed. 789, 1929 Dec. Comm’r Pat. 279 (1929). See also *Northern Pipeline*, *supra*, at 68, 102 S. Ct. 2858, 73 L. Ed. 2d 598 (plurality opinion) (citing *Ex parte Bakelite Corp.* for the proposition that the doctrine extended “only to matters that historically could have been determined exclusively by” the Executive and Legislative Branches).

Id. at 2612-13 (emphasis added). Patent rights fall outside the confines the Supreme Court has defined for the public rights exception. Patent rights are private rights that create “liability of one individual to another under the law as defined.” *Crowell v. Benson*, 285 U.S. 22, 50-51 (1932). Patent cases, which are property cases, “are not at all implicated [by the public rights exception].” *Atlas Roofing*, 430 U.S. at 458.

Moreover, patent rights are rooted in the Constitution, which gives Congress the power “[t]o promote the Progress of Science and useful Arts.” U.S. Const. art. I, § 8, cl. 8. Congress, however, was not granted the power to do so in any manner. Instead, the Constitution explicitly established the means to do so—“by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. Const. art. I, § 8, cl. 8. Thus, a patent is an exclusive private property right derived from the Constitution. The private property right includes a

bundle of associated legal rights, including the right to exclude others from making, using, offering for sale, selling, or importing the claimed invention by providing a private cause of action for infringement. 35 U.S.C. § 271; *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979) (“one of the most essential sticks in the bundle of rights that are commonly characterized as property—the right to exclude others”). The bundle of right rests solely in the hands of the patent owner. Whether a patent owner is asserting her rights to exclude others through a claim for patent infringement, or an individual is challenging the validity of a patent, the dispute lies between two private parties over the scope of private rights. A patent owner does not need Congressional approval to file an infringement action. Accordingly, the private nature of patent disputes between two parties supports patents are private rights. *See Crowell*, 285 U.S. at 50, 51.

In further support of a patent being a private right, Federal law declares that “patents shall have the attributes of personal property.” 35 U.S.C. § 261. The Supreme Court has repeatedly explained the private nature of patent rights, “a patent for an invention is as much property as a patent for land. The right rests on the same foundation, and is surrounded and protected by the same sanctions.” *Consol. Fruit-Jar Co. v. Wright*, 94 U.S. 92, 96 (1876). *See also, Brown v. Duchesne*, 60 U.S. 183, 197 (1857) (“For, by the laws of the United States, the rights of a party under a patent are his private property; and by the Constitution of the United States, private property cannot be taken for public use without just compensation.”); *Bonito Boats v. Thunder*

Craft Boats, 489 U.S. 141, 162 (1989) (describing the exclusive domain of private patent rights under federal law “allowing for the development of a uniform body of law in resolving the constant tension between private right and public access.”); *Prestonettes, Inc. v. Coty*, 264 U.S. 359, 366 (1924) (“Trade marks are protected upon the theory that they are private property and the right to the exclusive use of a trade mark is a private monopoly, something akin to that based upon a patent.”). As a property right rooted in the Constitution, patent rights are private property rights that do not fall within the public rights exception. *Atlas Roofing*, 430 U.S. at 458.

The public rights exception is limited to cases “where the Government is involved in its sovereign capacity under . . . [a] statute creating enforceable public rights.” *Atlas Roofing*, 430 U.S. at 458 (emphasis added). That definition is not met with respect to patent rights, which are not statutorily-created public rights, but instead private rights rooted in the Constitution. A right falling within the public rights exception is limited to those that can be pursued only by grace of the other branches of government, executive or legislative, *see Murray’s Lessee*, 59 U.S. at 284; a right that flows solely from a federal public regulatory scheme, *see Thomas v. Union Carbide Agricultural Products Co.*, 473 U.S. 568, 593-94 (1985); and a right “completely dependent upon” adjudication of a claim created by federal law, *see Commodity Futures Trading Com v. Schor*, 478 U.S. 833, 856 (1986). *See also Stern*, 131 S.Ct. at 2614-15 (summarizing the precedent defining the limited public rights exception). To qualify as a “public right,” like the rights created by Congress through the Environmental

Protection Agency, the Federal Communications Commission, or the U.S. Food and Drug Administration, the dispute about that right must be between the agency and the right holder. This is not the case with patents. Patents do not fit within the public rights exception because, as explained above, patent rights are rooted in the Constitution, and patent rights create liability between two private parties. Congress was given the power to establish and maintain a system for vetting patent applications and issuing patents. But as *McCormick* made clear, once a patent is issued, the patent rights themselves are private property rights rooted in the Constitution. *See* 169 U.S. at 608-09.

2. Patent rights are also private rights according to the dissenting opinion in the latest controlling precedent, *Stern v. Marshall*.

Even according to the dissenting opinion's formulation of the public rights exception in the *Stern* case, patent rights are private rights and do not fall within the public rights exception. The test applied by the dissent requires:

examination of certain relevant factors whether that delegation constitutes a significant encroachment by the Legislative or Executive Branches of Government upon the realm of authority that Article III reserves for exercise by the Judicial Branch of Government. Those factors include (1) the nature of the claim to be adjudicated; (2) the nature of the non-Article III tribunal; (3) the extent to which Article III courts exercise control over the proceeding; (4) the presence or absence of the parties' consent; and (5) the nature and importance of the legislative purpose served by the grant of adjudicatory authority to a tribunal with judges who lack Article III's tenure and compensation protections.

Stern, 131 S.Ct. at 2626. Under the dissent’s formulation, patent rights are private rights that do not fall within the public rights exception.

The first factor favors patents being private rights because the nature of a claim based in a patent right, typically the right to exclude, has always been adjudicated by Article III courts. The second factor also favors a private right because the PTAB is made up of judges who are interviewed and recommended by the Director of the USPTO to the Secretary of Commerce—in contrast to Article III judges who are nominated by the President and confirmed by the Senate. PTAB judges face significant political pressure due to the current climate of patent litigation.

The third factor also favors the conclusion that patents are private rights because only certain aspects of *inter partes* review proceedings are subject to limited Article III review at the Federal Circuit. For example, institution decisions are not reviewable. *St. Jude Med., Cardiology Div., Inc. v. Volcano Corp.*, 749 F.3d 1373, 1375-76 (Fed. Cir. 2014) (“The statute provides for an appeal to this court only of the Board’s decision at the second step, not the Director’s decision at the first step.”); *In re Cuozzxo Speed Techs., LLC*, 778 F.3d 1271, 1276 (Fed. Cir. 2015) (“We conclude that § 314(d) prohibits review of the decision to institute IPR even after a final decision.”).

With respect to the fourth factor, patent owners do not willingly consent to patent validity challenges in *inter partes* review, but instead are unwilling participants. In fact, patent owners cannot initiate *inter partes* review proceedings. 37 C.F.R. § 42.101 (“A person who is not the owner of a patent may file with the Office a petition to

institute an *inter partes* review”). *Inter partes* review enables constant threats against the patent owner, with the looming threat of being forced to adjudicate patent validity in an administrative arena without a jury, even in situations where the patent owner is not asserting his patent rights against another party.

The last factor is likely neutral. The legislative purpose of *inter partes* review was to provide “third parties a quick, inexpensive, and reliable alternative to district court litigation to resolve questions of patent validity.” *See e.g.* S. Rep. No. 110-259, at 4 (2008). While *inter partes* reviews are not more reliable than litigation in an Article III court and often fail to properly resolve questions of patent validity (for example, the discovery process effectively disallows consideration of secondary indicia of non-obviousness—the very evidence this Court describes as essential), the process is much quicker and cheaper. As such, the goals of being quick and cheap are met at the expense of the rights previously bestowed on the patent owner. Based on consideration of all five factors, patent rights are private rights. Thus, under both the *Stern* court’s majority and dissenting formulations, patent rights do not fall within the private rights exception.

3. The treatment of patents as common law establishes that patent rights are private rights not properly within the public rights exception.

Furthermore, the treatment of patents at the common law supports the conclusion that patent rights are private rights. The earliest Supreme Court case defining the public rights exception provided that “any matter which, from its nature,

is the subject of a suit at the common law, or in equity, or admiralty,” does not fall within the public rights exception. *Murray’s Lessee*, 59 U.S. at 284. Only an Article III court has the authority to determine whether a private property right may be revoked. *Marbury v. Madison*, 5 U.S. 137, 154-56, 166 (1803); *see also Cammeyer v. Newton*, 94 U.S. 225, 234-35 (1876) (“Agents of the public have no more right to take such private property than other individuals under that provision, as it contains no exception warranting any such invasion of the private rights of individuals.”). The same rules have consistently been applied to patent rights.

Adjudication of issues related to patent rights, including cases of patent infringement and patent validity have historically taken place in Courts. “Equally familiar is the descent of today’s patent infringement action from the infringement actions tried at law in the 18th century, and there is no dispute that infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago.” *Markman v. Westview Instruments*, 517 U.S. 370, 377 (1996). In addition, patent validity challenges also historically occurred in Article III courts through a writ *scire facias*—a procedure no longer available under the Federal Rules of Civil Procedure.

[It] is ORDERED by the Court . . . that the said Judge do award a process, in the nature of a *scire facias*, to the patentees, to show cause why the said patent should not be repealed . . . the said Judge do proceed to try the cause upon the pleadings filed by the parties, and the issue joined thereon; and that if the issue be an issue of fact, the trial thereof be by a jury; if an issue of law then by the Court, as in other cases.

Ex parte Wood & Brundage, 22 U.S. 603, 615 (1824) (ordering a jury trial on the issue of whether a patent should be repealed), *see also McCormick* 169 U.S. at 609 (“The only authority competent to set a patent aside, or to annul it, or to correct it for any reason whatever, is vested in the courts of the United States, and not in the department which issued the patent.” (internal citations omitted)). Article III courts have properly continued to decide issues of patent rights.

The rules governing adjudication of patent rights are akin to the rules regarding adjudication of right in patents in land, which could only be decided in Court:

a patent for an invention stands in the same position and is subject to the same limitations as a patent for a grant of lands. The power to issue either one of these patents comes from Congress and is vested in the same department. In the case of a patent for lands it has been held that when one has obtained a patent from the Government he cannot be called upon to answer in regard to that patent before the officers of the Land Department, and that the only way his title can be impeached is by suit.

Id. at 609. Thus, patents, as private property can only be revoked by an Article III court, and *inter partes* review proceedings improperly allow for the adjudication of private patent rights outside of an Article III court.

4. The *Patlex* decision on the constitutionality of *ex parte* reexamination does not control the analysis of patent rights and treatment of those rights in the dissimilar *inter partes* review proceedings.

This Court’s decision in *Patlex*, which analyzed the constitutionality of *ex parte* reexamination of patent rights, is not controlling of the analysis regarding constitutionality of *inter partes* review. *See Patlex Corp. v. Mossinghoff*, 758 F.2d 594 (Fed.

Cir. 1985). The PTAB's remarks regarding the characteristics of *inter partes* review evidence the stark contrast between *ex parte* examination and *inter partes* review. *ScentAir Tech., Inc. v. Prolitec, Inc.*, IPR2013-00179, Paper 9 at 4 (April 16, 2013). "An *inter partes* review is not original examination, continued examination, or reexamination of the involved patent. Rather, it is a trial, adjudicatory in nature and constituting litigation." *Id.* The contrast between the *ex parte* reexamination and *inter partes* review renders the Court's analysis in *Patlex* immaterial to the analysis of whether *inter partes* review is constitutional. Furthermore, the Court does not need reach the issue of whether *ex parte* reexamination is constitutional.

The *Patlex* decision does not overturn the Supreme Court jurisprudence on the treatment of patent rights, and is inconsistent with subsequent Supreme Court precedent defining the limited public rights exception. The *Patlex* Court reasoned that:

the grant of a valid patent is primarily a public concern. Validity often is brought into question in disputes between private parties, but the threshold question usually is whether the PTO, under the authority assigned to it by Congress, properly granted the patent. At issue is a right that can only be conferred by the government.

758 F.2d at 604. Based on this line of reasoning—which fails to recognize the differences between the Patent Office's role of considering the allowability of a patent application and the court's role in overseeing an alleged infringer's validity challenge of an already issued patent—the Court incorrectly characterized patent rights as public rights. Even while doing so, the Court recognized that "it is beyond reasonable

debate that patents are property.” *Id.* at 599; *see also Joy Techs., Inc. v. Manbeck*, 959 F.2d 226, 229 (Fed. Cir. 1992) (following the decision in *Patlex*). If being of public interest transforms a private property right into a public right, then Congress could make all rights (property, contract, etc.) subject to a politicized administrative process and remove the protection of Article III courts by simply creating a statutory scheme. *See Stern*, 131 S.Ct. at 2612 (“In those cases it depends upon the will of congress whether a remedy in the courts shall be allowed at all, so Congress could limit the extent to which a judicial forum was available.” (internal quotation omitted)). Contrary to the flawed reasoning in the *Patlex* and *Joy* decisions, merely being of public concern or including a regulatory review scheme to vet the granting of private rights does not transform the private property right in an issued patent into a public right. Instead, the public rights exception serves to uphold the separation of powers which prohibits Congress from withdrawing adjudication of private rights from the judiciary.

Moreover, the *Patlex* case is distinguishable from the facts in this case because the *inter partes* review proceedings are markedly different than *ex parte* reexamination proceedings. The Court’s decision in *Patlex* is based, in part, on the finding that:

The reexamination statute’s purpose is to correct errors made by the government, to remedy defective governmental (not private) action, and if need be to remove patents that should never have been granted. We do not read *McCormick Harvesting* as forbidding Congress to authorize reexamination to correct governmental mistakes, even against the will of the patent owner. A defectively examined and therefore erroneously granted patent must yield to the reasonable Congressional purpose of

facilitating the correction of governmental mistakes. This Congressional purpose is presumptively correct, and we find that it carries no insult to the Seventh Amendment and Article III.

Id. at 604. This basis for upholding the constitutionality of *ex parte* reexamination does not extend to *inter partes* review proceedings.

The two proceedings have markedly different characteristics. *Ex parte* reexamination involves a back-and-forth exchange between the patent owner and the patent office. A third-party may submit a request for reexamination of another parties' patents, providing prior art and asserting a substantial new question of patentability. After the request is filed, the third-party is precluded from further involvement in the proceedings. Alternatively, a patent owner could consent to *ex parte* reexamination of his own patent rights. The patent office and the patent owner proceed to reexamine the patent based on the submitted prior art references. The patent owner is allowed to freely amend the claims and to correct an error made by the government during the original examination. Finally, all decisions made during *ex parte* reexamination proceedings were subject to *de novo* review by a District Court. *See Power Integrations, Inc. v. Kappos*, 6 F. Supp. 3d 11, 18 (D.D.C. 2013) ("Congress intended to preserve *de novo* review in district court for patent owners who receive adverse decisions from the BPAI in *ex parte* reexamination proceedings.). As the title suggests, *ex parte* reexamination is essentially a re-examining of a patent application.

Inter partes review, on the other hand, is distinct from *ex parte* reexamination. The PTAB itself recognizes that “*inter partes* review is not original examination, continued examination, or reexamination of the involved patent. Rather, it is a trial, adjudicatory in nature and constituting litigation.” *ScentAir v. Prolitec*, 2013-00179, Paper 9, at 4 (PTAB April 16, 2013). The purpose of *inter partes* review is not to correct governmental errors. It is instead, a proceeding specifically designed to move adjudication of patent validity disputes between patent owners and alleged infringers from the judicial branch to the executive branch. The proceedings are distinct from *ex parte* reexamination, which involves the government and the patent owner, instead, *inter partes* review involve opposing briefing and trial before the PTAB between patent owner and a third-party. There is no presumption of validity in *inter partes* review. See e.g., *Blackberry Corp. v. Mobilemedia Ideas LLC*, IPR2013-00016, Paper 32, at 20 (PTAB Feb. 25, 2014). Finally, in contrast to *ex parte* reexamination, not every decision in *inter partes* review may be appealed. See *St. Jude Med.*, 749 F.3d at 1375-76; *In re Cuozzoco Speed Techs., LLC*, 778 F.3d at 1276. Accordingly, as the purpose of correcting governmental errors is not central to *inter partes* review, and thus the *Patlex* decision does not control the determination of whether an *inter partes* review involving patent rights falls within the public rights exception. Ultimately, the Court does not need reach the issue of whether *ex parte* reexamination is constitutional; only the issue of whether *inter partes* review is constitutional is raised in this appeal.

In conclusion, Congress improperly shifted power from Article III courts to the PTAB, an Article I executive-controlled agency, by creating *inter partes* review proceedings under the America Invents Act to adjudicate the validity of a private patent right. Article III requires that “[t]he judicial Power of the United States, shall be vested in one Supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish.” U.S. Const. art. III, § 1.

As its text and our precedent confirm, Article III is “an inseparable element of the constitutional system of checks and balances” that “both defines the power and protects the independence of the Judicial Branch.”

Stern, 131 S.Ct. at 2608 (citing *Northern Pipeline*, 458 U.S., at 58.). Only cases falling within the public rights exception may be removed by Congress from adjudication in Article III courts. Under every analysis of the public rights exception, only a right that is statutorily created as a public right can fall within this limited exception. Patent rights are not public rights. Patent rights are, and always have been private property rights, and thus Affinity’s private right in the ’390 patent was unconstitutionally adjudicated in *inter partes* review proceedings before the PTAB. Accordingly, the Board’s Final Written Decision should be vacated.

B. The Seventh Amendment guarantees Affinity the right to adjudication of its private patents right before a jury.

Affinity is entitled to adjudication of its private patent rights before a jury. When a legal cause of action involves a private right, such as a patent, the Seventh

Amendment protects a litigant's right to a jury trial. *Granfinanciera v. Nordberg*, 492 U.S. 33, 42 n.4 (1989).

Congress may devise novel causes of action involving public rights free from the strictures of the Seventh Amendment if it assigns their adjudication to tribunals without statutory authority to employ juries as factfinders. But it lacks the power to strip parties contesting matters of private right of their constitutional right to a trial by jury. As we recognized in *Atlas Roofing*, to hold otherwise would be to permit Congress to eviscerate the Seventh Amendment's guarantee by assigning to administrative agencies or courts of equity all causes of action not grounded in state law, whether they originate in a newly fashioned regulatory scheme or possess a long line of common-law forebears. 430 U.S., at 457-458. The Constitution nowhere grants Congress such puissant authority. “[L]egal claims are not magically converted into equitable issues by their presentation to a court of equity,” *Ross v. Bernhard*, 396 U.S. 531, 538 (1970), nor can Congress conjure away the Seventh Amendment by mandating that traditional legal claims be brought there or taken to an administrative tribunal.

Id. at 51-52 (emphasis added). By creating alternative administrative avenues for litigation of private patent rights outside of Article III courts, Congress has eviscerated the Seventh Amendment's guarantee of a jury trial.

The Seventh Amendment has consistently afforded the owners of statutorily created intellectual property the right to a trial before a jury. *See e.g., Arnstein v. Porter*, 154 F.2d 464, 468 (2d Cir. 1946) (“That it is founded solely on a statute does not deprive either party of a right to a trial by jury”); *Feltner v. Columbia Pictures Television, Inc.* 523 U.S. 340, 355 (1998); *Dairy Queen, Inc. v. Wood*, 369 U.S. 469, 477, 479-80 (1962). Patents, trademarks, and copyrights are all subject to pre-issuance examination, but these administrative and regulatory schemes do not permit Congress to deny intellectual property owners its right to assert and defend their private property rights

before juries in Article III courts. Accordingly, Patent owners are entitled to a jury trial on claims of patent infringement. *Markman v. Westview Instruments*, 517 U.S. 370, 377 (1996) (“there is no dispute that infringement cases today must be tried to a jury”).

Furthermore, issues of patent validity have historically been decided exclusively before a jury. *See Ex parte Wood & Brundage*, 22 U.S. 603, 615 (1824) (ordering a jury trial on the issue of whether a patent should be repealed). It is true that this Court has held that where a patent owner seeks only equitable relief for violation of its patent rights, it is not entitled to a jury trial. *See e.g., In re Tech. Licensing Corp.*, 423 F.3d 1286, 1291 (Fed. Cir. 2005) (“seeking only equitable relief on its claim of infringement, confers no jury trial right on TLC”). However, Affinity has at no point consented to the adjudication of its patent rights separate from a jury trial by pursuing only equitable relief, and Affinity has never consented to *inter partes* review proceedings. A251-252, A289-291. Throughout the proceedings, Affinity challenged the constitutionality of *inter partes* review. A250-A255, A289-293. Before Petitioners commenced these *inter partes* review proceedings, Affinity sought both legal relief in the form of damages and equitable relief against Petitioners when it filed its suit for infringement of the ’390 patent. A251, A289-290. Affinity was thereby entitled to a jury trial on the issues of infringement and validity in accordance with the Seventh Amendment.

The differences between *inter partes* review and litigation before a jury in an Article III court are stark. Unlike in an Article III Court, there is no presumption of validity in *inter partes* review. *See e.g., Blackberry Corp. v. Mobilemedia Ideas LLC*, IPR2013-00016, Paper 32, at 20 (PTAB Feb. 25, 2014) (“There is no presumption of validity as

to the challenged claims or substitute claims in an *inter partes* review.”). A party challenging a patent in court can only overcome the presumption of patent validity by presenting clear and convincing evidence of invalidity. A lower standard applies in *inter partes* review, and the Petitioner need only prove invalidity by a preponderance of evidence. 35 U.S.C. § 316. In addition, the standard for claim construction is more liberal in *inter partes* review proceedings as compared to district court litigation. The PTAB construes claims based on the “broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art.” 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015). A correct claim construction is necessary to accurately decide issues of patent validity. The PTAB also recognizes “in *inter partes* review, discovery is limited as compared to that available in district court litigations. Limited discovery lowers the cost, minimizes the complexity, and shortens the period required for dispute resolution.” *Garmin International Inc. v. Cuozzo Speed Tech. LLC*, IPR2012-00001, Paper 26, at 4-7 (PTAB Mar. 5, 2014). However, limited discovery stymies a patent owners’ ability to fully investigate and present evidence in defense of its private patent rights. In conclusion, Affinity’s rights to a jury trial before an Article III court have been eviscerated by Congress’s establishment of an administrative agency to function as a quick and cheap alternative means of patent validity litigation.

In conclusion, Affinity respectfully requests that this Court vacate the Board’s decision because the *inter partes* review proceeding unconstitutionally deprived Affinity of its right to adjudicate its patent rights in an Article III court in violation of the separation of powers and the Seventh Amendment.

II. The Board erred in deciding that claims 16, 19, and 20 of the '390 patent were unpatentable.

In determining whether a claim is invalid as obvious under 35 U.S.C. § 103, the Board had to decide, from the perspective of one of ordinary skill in the pertinent art, whether,

the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 405 (2007). In addition, the Board is instructed to “be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning.” *KSR*, 550 U.S. at 421; *see also Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 36 (1966) (warning against the “temptation to read into the prior art the teachings of the invention in issue” and instructing factfinders to “guard against slipping into use of hindsight.”).

A. The Board erred in finding claims 16, 19, and 20 of the '390 patent unpatentable based on the combination of Galensky and Bork, because the Petitioners failed to prove by a preponderance of evidence that a motivation to combine or a reasonable expectation of success existed.

The Board described the asserted references, Galensky and Bork before proceeding with its analysis on obviousness. A11-12. The Board made three observations regarding the Bork reference to allegedly establish the motivation to combine the references:

- “First, a bulky electrical power transformer is not required for the portable device, saving both space and the cost of the transformer.” A11-12.
- “Second, a single cable can be used to synchronize data and download software updates while the battery of the portable device is being recharged.” A12.
- “Finally, a laptop computer running solely on battery power can recharge the battery of a portable device, which Bork discloses is useful when another source of power is unavailable.” A-12.

The Board’s reasoning regarding Bork is incorrect and not supported by the evidence, thus the Board’s Final Written Decision is not supported by substantial evidence and must be reversed.

- 1. The Board erred in finding that the use of the USB cable from Bork to power a portable device would eliminate the need for a “bulky electrical power transformer,” thereby saving space and cost.**

The Board’s finding that Bork’s USB cable would eliminate the need for a power transformer for the portable device is not a motivation to combine the reference because powering a device is different than recharging a device. A11. Independent claim 16, and dependent claims 19 and 20 recite, “a physical interface of the portable device . . . wherein the physical interface is designed . . . in a manner that allows the different electronic device to recharge the local rechargeable battery.” A8-9, A53. Although the claim language is not directed to powering, however, the Board’s reasoning behind its obviousness determination focused on powering. The claim

language, and thus any decision on obviousness, must be based on recharging, not powering. Eliminating a transformer for powering a portable electronic device thus fails to establish motivation to combine the portable device in Galensky with the USB cable in Bork, in light of the claim language directed to recharging.

Petitioners did not even argue that use of Bork's cable would eliminate the need for a transformer thereby saving space and expense. *See* A79-92. Nor did Petitioners' expert, Dr. Quackenbush discuss this as a motivation. *See* A2185-A2191. Instead Petitioners argued for the combination based on "saving cost and travel space by eliminating the need for an additional cable; eliminating the need for two dedicated power sources; and providing the ability to recharge a portable device from a second device when no other power source is available. A81. The portable device would still require mechanisms for recharging the device in addition to powering the device. Without the ability to recharge the portable device, it would constantly need to be connected by the cable in Bork to its power source. This would defeat the purpose of portability. Thus, one of ordinary skill in the art would not be motivated to add Bork to a portable device as sole means for powering the device, because the '390 patent also claims the use of an interface system to allow the different electronic device to recharge the local rechargeable battery of a portable device.

The Board's reasoning that one of ordinary skill in the art might combine two references to achieve powering a portable device without a bulky power transformer, is not reasonably supported by the record. Merely presenting a reason to combine the

cited prior art references is inadequate. “[T]he burden falls on the challenger of the patent to show . . . that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007) (emphasis added). Accordingly, the Board’s reasoning cannot support a finding of obviousness because the Petitioners did not set forth this argument. Additionally, the alleged motivation relied on by the Board, which related to powering a portable device, would not have lead one of ordinary skill in the art to combine the references to fulfill the claimed invention related to recharging a portable device.

2. The Board erred in finding that the single cable from Bork could “synchronize data and download software updates while the battery of the portable device is being recharged.”

The Board’s finding that it would have been obvious to combine Bork’s disclosure that “a single cable can be used to synchronize data and download software updates while the battery of the portable device is being recharged” with the device in Galensky is incorrect. A12, A15. The evidence presented by Patent Owner established that one of ordinary skill in the art would not have been motivated to combine Bork and Galensky because one of ordinary skill in the art would not have had a reasonable expectation of success in combining the two references to achieve both data transfer and recharging of the portable device in 2000. A238-246, A2412-2422. In 2000, a

USB cable could not be plugged into any portable device to simultaneously achieve the transfer of data to and recharging of the portable device.

Petitioners' argument that "it is irrelevant whether commercially available portable devices actually used USB for recharging," was incorrect. *See* A311-315. Instead, this Court has explained that "[w]hile absolute certainty is not necessary to establish a reasonable expectation of success . . . there can be little better evidence negating an expectation of success than actual reports of failure." *Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp.*, 320 F.3d 1339, 1354 (Fed. Cir. 2003). Under a similar timeline of development, this Court stated:

[o]nly after recognizing the existence of the problem would an artisan then turn to the prior art and attempt to develop a new [solution]. If these discoveries and advances were routine and relatively easy, the record would undoubtedly have shown that some ordinary artisan would have achieved this invention within months . . . Instead this invention does not appear for more than a decade.

Leo Pharm. Prods. v. Rea, 726 F.3d 1346, 1354 (Fed. Cir. 2013). Similarly, here it took years after Bork for USB to successfully achieve the ability to recharge a portable device.

Affinity presented evidence of actual failure, proving that there was no reasonable expectation of success in combining the prior art references, because USB 1.1 was not capable of recharging and transferring data to a portable electronic device, such as the device in Galensky in 2000. A238-246, A249-250, A2412-2422. Accordingly, even up until 2005, companies like Nokia, Palm, and Motorola did not

implement USB 1.1 to provide recharging capabilities and data transfer. A249-250, A2412-2413, A1990-1998. Petitioners set forth no credible evidence that a device existed in 2000, or even shortly after, that could use a physical interface to recharge a device at the same time it transmitted data.

In an attempt to address this shortcoming, Petitioners presented new evidence in their Reply asserting that the ADS Technologies Elite MP3 player “included a USB connection for both transmitting data and battery recharging.” A311-313, A2247-2253, A2290-2293. Petitioners relied on an article that stated “[t]he USB connection enables users to upload MP3 files from their PC faster than through a parallel port. The electrically-charged external bus also enables users to recharge the Elite’s MP3 player’s batteries while plugged into the USB port.” A313, A2250-2251, A2292. In fact, this was not true, the Elite MP3 player did not have the capability to be recharged using USB. Patent Owner obtained an affidavit from the CEO of ADS Technologies, explaining that, in fact, the Elite MP3 player did not have these capabilities. A328-334, A399-401. The Board refused to consider this evidence.

3 JUDGE TORNQUIST: Okay. So we are not going
4 to consider the evidence because it is too late. I am going to
5 give you 30 seconds to put on the record what it is that you
6 would have put forward.
7 MR. SCHULTZ: Sure. I have a declaration from
8 Mike McCoy, who was the CEO at the time of ADS
9 Technologies, Inc., which is the manufacturer of the Elite MP3
10 player. And Mr. McCoy states in his declaration that that
11 article in the exhibit was simply a news or a press release and,
12 in fact, one—and this is quoting directly from his
13 declaration—“one aspect of the Elite MP3 player that was not

14 functional was its ability to recharge the battery using a USB
 15 cable. Yunyun Technology was not able to demonstrate that
 16 USB could recharge the battery in the Elite MP3 player."
 17 Yunyun Technology was the Taiwanese company
 18 that they had manufacture the device.
 19 JUDGE TORNQUIST: Okay. Thank you.
 20 Understand we're not going to rely on that evidence.

A400. Contrary to Petitioners' assertion, the Elite MP3 player was just another example of a failure supporting that there was no reasonable expectation of success in combining the USB cable in Bork and Galensky to achieve recharging of a portable device. Merely asserting that the idea of combining the ability for USB to transfer data and recharge a device, as in combining Bork and Galensky, as asserted by Petitioners, does not provide a path for implementation with a reasonable expectation for success. Putting Galensky and Bork together is not simply "a combination of familiar elements according to known methods" that "does no more than yield predictable results," because there is no reasonable expectation of success in combining the two references. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 405, 127 S.Ct. 1727, 1734 (2007). Petitioners failed to set forth adequate evidence of establishing a reasonable expectation of success by a preponderance of the evidence. The Board's lack of reasoning in support of its finding further supports the conclusion that its decision was made in hindsight. Thus, the Board erred in finding claims 16, 19, and 20 of the '390 patent obvious.

3. **The Board erred in finding that the invention in Bork was capable of providing sufficient power to recharge the battery of a portable device using a laptop computer running solely on**

battery power in 2000.

The Board found that Bork disclosed that “a laptop computer running solely on battery power can recharge the battery of a portable device, which Bork discloses is useful when another source of power is unavailable.” A12. The Board’s determination is based on improper hindsight, as Patent Owner has presented adequate evidence that there was no reasonable expectation of recharging a portable electronic device using USB in 2000. A14-17. Claim 16 requires “using the interface system in a manner that allows the different electronic device to recharge the local rechargeable battery using at least one of the multiple conductive elements.” However, the Board only relied the following disclosure from Bork in finding it capable of recharging:

Yet another advantage of the present invention is the fact that a cellular phone can draw power from computer 26 while computer 26 is running solely on its batteries—e.g., no power source is available to plug into. This is an important advantage while traveling. The batteries in computer 26 have more capacity than those in cellular phone 14 and can easily be used to supply the *small additional amounts of power* the cellular phone requires. Indeed, in such a situation where the computer is running on battery power, only one cable is required to *supply power and/or power and data* to cellular phone 14.

A14, A1838 (emphasis added). This disclosure does not provide for the recharging of a portable electronic device using another electronic device. In fact, it makes no mention of recharging. Instead, it only provides for powering the portable electronic device. The distinction is significant because different electrical components, capabilities, and systems are required to fulfill each function.

Petitioners failed to set forth adequate evidence showing that the combination of Bork's disclosures with the ability to recharge a portable device would have had a reasonable expectation of success. A79-82, A2253-2266. As Patent Owner explained, the USB standard did not provide for recharging until 2007, and the standard in 2000 did not mention or describe using USB to recharge a battery or device. A238-244, A2412-2422. Thus, the use of USB in 2000 for recharging was not a routine task and combining Bork with Galensky would not have involved using a component in a predictable way to achieve a predictable result because doing so would not have worked. This was because USB 1.1 did not provide adequate power output to successfully recharge a portable electronic device. A1874, A1990-1998.

In its Reply, Petitioners for the first time rely on slow-charging to suggest that Bork could be used to recharge a portable electronic device. A313-315, A2254-2260, A2294, A2339-2344, A2357, A2373-2374. For the first time in its Reply, Petitioners distinguished between the concepts of fast-charging and slow-charging. Petitioners argued that one of ordinary skill in the art would have had a reasonable expectation of success in combining Bork and Galensky to recharge the portable device through slow-charging using USB as disclosed in Bork. A313-315. In order to make a case for obviousness, Petitioners needed to set forth this distinction and its argument regarding the use of slow-charging to recharge a device in its Petition, and thus this argument was an improper new argument on Reply.

Ultimately, Petitioners' contention regarding slow-charging was not correct. There is no disclosure of slow-charging in Bork. *See generally*, A1825-1840. There is no disclosure of how one of ordinary skill in the art could implement slow-charging through the USB disclosed in Bork to recharge a portable device as disclosed in Galensky. The evidence relied on by Petitioners does not establish that slow-charging would have worked. USB Spec. Rev. 1.1 does not even mention recharging a device, let alone using slow-charging in USB to recharge a device. A1874, A1990-1998. Additionally, the references cited by Petitioners describing slow-charging make no mention of USB. A2294, A2339-2344, A2357, A2373-2374. Thus, Petitioners failed to present any evidence, beyond conclusory statements, that USB as disclosed in Bork, was capable of using slow-charging to recharge a portable electronic device.

As explained above, the one device Petitioners relied on to establish a reasonable expectation of success, the ADS Technologies Elite MP3 player, could not be recharged through USB. Furthermore, slow charging would have been just as described—slow—and would have required prolonged periods of connection defeating the purpose of portability associated with the device in Galensky. Additionally, as discussed above, not until years after the priority date of the '390 patent were devices capable of using USB technology to recharge their batteries. Without a reasonable expectation of Bork successfully recharging the portable device in Galensky, there would have been no motivation to combine the references. Thus

the Board's decision is not based on factual findings as of the time of invention, but instead improper hindsight.

Affinity respectfully requests that this Court vacate the Board's decision because the Board's understandings of Bork and the state of the art, and thus its decision that the combination of Bork and Galenky would render the '390 patent obvious, is unsupported by substantial evidence.

B. The Final Written Decision lacks sufficient analysis to support the Board's finding of unpatentability

The Board failed to make factual findings or identify specific evidence supporting a determination that Petitioners had proven unpatentability by a preponderance of the evidence. A finding of obviousness must be supported by "factual findings on obviousness as set forth by the Supreme Court in *Graham v. John Deere*." *Ruiž v. A.B. Chance Co.*, 234 F.3d 654, 660 (Fed. Cir. 2000) ("Because the district court failed to make factual findings on obviousness . . . we must vacate the judgment of invalidity and remand to the district court.").

In addition, the Administrative Procedure Act requires "[t]he agency tribunal [to] present a full and reasoned explanation of its decision. The agency tribunal must set forth its findings and the grounds thereof, as supported by the agency record, and explain its application of the law to the found facts." *In re Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002).

[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning

with some rational underpinning to support the legal conclusion of obviousness. This requirement is as much rooted in the Administrative Procedure Act, which ensures due process and non-arbitrary decisionmaking, as it is in § 103.

In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006) (internal citations omitted). Accordingly, the Administrative Procedure Act “requires that the agency not only have reached a sound decision, but have articulated the reasons for that decision.” *In re Lee*, 277 F.3d at 1342.

The Board failed to adequately articulate the reasons for its decision as required by § 103 and the Administrative Procedure Act. Instead, the Board’s Final Written Decision merely summarizes the arguments and evidence set forth by the parties without engaging in the required substantive analysis. First, the Board described the types of evidence submitted by the Petitioners:

In support of its argument, Petitioner provides a claim chart, demonstrating where Galensky and Bork disclose each limitation of the challenged claims, and the declaration testimony of Schuyler Quackenbush, Ph.D. *Id.* at 24–34; Ex. 1015 (initial declaration); Ex. 1020 (rebuttal declaration).

A10. Next, the Board described the evidence presented by the Patent Owner. *Id.* Then, the Board described the Galensky and Bork references. A11-A12.

In the next section, titled “Analysis,” the Board summarized Petitioners’ arguments:

Petitioner provides detailed analysis showing where each limitation of claims 16, 19, and 20 is disclosed in Galensky and Bork. Pet. 18–34. With respect to the rationale for modifying Galensky to include Bork’s multifunctional cable

and physical interface, Petitioner contends that one of ordinary skill in the art would have sought to incorporate these features in Galensky's portable device in light of the numerous advantages expressly set forth in Bork. *Id.* at 18–24. Petitioner further contends that the obviousness of the challenged claims is confirmed by the fact that “each element (e.g., Bork's USB for recharging the battery and Galensky's portable device with data connectivity and switching communication rates) merely performs the same function as it does separately, yielding only predictable results.”

A12. Then, the Board summarized Patent Owner's arguments that the combination of Galensky and Bork were not obvious. A13. Ultimately, the Board simply concluded that the Board was not persuaded by these arguments. A12-A19.

The organization and content of the decision demonstrates that the Board improperly shifted the burden of proof from the Petitioners to the Patent Owner. *See* 35 U.S.C. § 316(e) (“the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.”). The Board's decision contains no analysis of the evidence presented by the Petitioners in their Petition or how the evidence in the petition proves obviousness by a preponderance of the evidence. After only addressing the Patent Owner's arguments, the Board simply concludes that “[u]pon review of Petitioner's and Patent Owner's arguments and evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 16, 19, and 20 of the '390 patent are unpatentable under 35 U.S.C. § 103 as obvious over Galensky and Bork.” A19.

The Board's decision fails to identify adequate factual findings to support a determination of obviousness. A final decision must provide sufficient factual findings and reasoning for invalidating a patent. On appeal, a final decision failing to meet these basic requirements under § 103 or the Administrative Procedure Act cannot be upheld. *See e.g., Malico, Inc. v. Cooler Master USA Inc.*, 594 Fed. Appx. 621, 629 (Fed. Cir. 2014) ("The record lacks any analysis or findings . . . On remand, the district court must engage in such an analysis and articulate its reasoning with sufficient clarity to enable our review."); *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1375 (Fed. Cir. 2000) ("Because we do not discern any evidentiary basis for the finding by the district court that there was a suggestion, teaching, or motivation to combine the prior art references cited against the claimed invention, the district court's conclusion of obviousness cannot stand."); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297 (Fed. Cir. 1985) ("The district court did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination, nor in fact did the district court even point out what teachings from each of the references, when considered in combination, were relied upon in concluding that the invention of claim 10 would have been obvious.").

First, the Board failed to make the required factual findings on the reason, suggestion, or motivation present in the prior art, the knowledge of those of ordinary skill in the art which clearly and particularly would lead one of ordinary skill in the art to combine the asserted references. Second, the Board failed to weigh the credibility

of the expert witnesses, or indicate the actual weight accorded to each expert's testimony and the factual basis for doing so. It appears that the Board gave zero weight to Dr. Zhong's testimony in support of Affinity's positions. However, the Board provides no analysis to support the decision to discredit Dr. Zhong and/or credit Dr. Quackenbush, such as weighing the relative training, expertise, bias, or factual basis for the opinions of the experts. *Compare* A2398-2401 and A2424-2435 with A2167-2175 and A2217-2230. Thus, the Board's decision cannot be upheld because it failed to present adequate factual finding or reasoning to support a finding of obviousness.

Accordingly, Affinity respectfully requests, at a minimum, that this case be remanded and the Board be instructed to reexamine and fully document its obviousness analysis and decision. However, for all the reasons stated above, the Board's decision should be reversed.

III. The Board arbitrarily and capriciously denied Patent Owner's procedural requests for leave to file a motion to strike the Petitioners' improper supplemental evidence and to file a motion to supplement in violation of the Administrative Procedure Act.

The Board's procedural decisions are subject to review under the Administrative Procedure Act ("APA"). The APA provides for review of "[a] preliminary, procedural, or intermediate agency action or ruling not directly reviewable . . . on the review of the final agency action." 5 U.S.C. § 704. The Act further provides that a reviewing court "hold unlawful and set aside agency action, findings, and conclusions found to

be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706. In determining whether an agency decision is arbitrary and capricious, courts must consider “whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” *See e.g., Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416 (1971).

A. Affinity has legal standing to receive judicial review of the Board’s procedural actions.

Affinity has standing to receive judicial review of the Board’s actions because Affinity is “a person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action . . . is entitled to judicial review thereof.” 5 U.S.C. § 702. A party has standing to seek judicial review under the Administrative Procedure Act if the following factors are met: (1) injury in fact; (2) causation; (3) redressability; and (4) zone of interest. *See Animal Legal Def. Fund v. Quigg*, 932 F.2d 920, 925 (Fed. Cir. 1991). Affinity meets this test and has standing to challenge the Board’s decisions under the Administrative Procedure Act.

First, Affinity has suffered injury in fact through invalidation of claims 16, 19, and 20 of the ’390 patent during the *inter partes* review proceedings. The Board’s procedural decisions to deny Patent Owner’s request for leave to file a motion to strike Petitioners’ improper reply evidence and motion for leave to file supplemental evidence, impaired Affinity’s ability to defend the validity of its patent, thereby causing the injury in fact. This Court has the power to redress this injury by vacating

the Board's decisions and remanding for further proceedings. Congress created *inter partes* review under America Invents Act for the purpose of providing a quick and efficient litigation for defendants in patent infringement lawsuits to challenge the validity of patents, and Affinity's interests in fair and reasonable procedural decisions related to its patent rights in the underlying *inter partes* review proceedings fulfill the zone of interest requirement for standing.

B. The Board erred in denying Patent Owner's request for leave to file a motion to strike the Petitioners' improper supplemental evidence.

The Board's decision to deny Affinity an avenue to exclude Petitioners' improper supplemental evidence was arbitrary and capricious. In *inter partes* review, the petition must set forth the Petitioners' prima facie case for invalidity. On November 21, 2014, the Petitioners filed Reply brief and thirty-eight new exhibits, including an additional 57 pages of expert opinions from Dr. Quackenbush. These materials set forth new evidence and arguments not originally set forth in the Petition. "A reply may only respond to arguments raised in the corresponding opposition or patent owner response." 37 C.F.R. § 42.23. Thus, new arguments and evidence cannot be submitted for the first time in a reply if not directly responsive to the preceding brief. A reply that raises a new issue or belatedly presents evidence will not be considered." *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,767 (Aug. 14, 2012). "[I]ndications that a new issue has been raised in a reply include new evidence necessary to make out a prima facie case for . . . patentability or unpatentability . . . and new evidence that

could have been presented in a prior filing.” *Id.* Furthermore, under 37 C.F.R. § 42.123, “[a] party seeking to submit supplemental information more than one month after the date the trial is instituted, must request authorization to file a motion to submit the information. The motion to submit supplemental information must show why the supplemental information reasonably could not have been obtained earlier, and that consideration of the supplemental information would be in the interests-of-justice.” Petitioners did not file this required motion.

On December 2, 2014, Affinity sought authorization to file a Motion to Strike Improper Supplemental Information that Petitioners provided in their Reply to Patent Owner’s Response. A2. The Board and the parties acknowledged that a motion to exclude is not the proper avenue to remove improper supplemental evidence from reply briefing. A2. Ultimately, the Board did not grant Affinity leave to file a motion to exclude or strike the improper evidence. A3. Instead, the Board stated:

we saw no reason to authorize a Motion to Strike. During the preparation of the Final Written Decision, the panel will be able to distinguish between information supplied in rebuttal to Patent Owner’s Response and information that is supplied to supplement the Petition. Thus, a Motion to Strike is not necessary.

Id. This conclusory reasoning, which fails to weigh the effect of the decision on the parties, demonstrates the arbitrary nature of the Board’s decision.

The Board’s decision arbitrarily and capriciously deprived Affinity of its ability to remove improper evidence from the record. Without some means to remove this improper evidence, the Petitioners were allowed to hold back arguments and evidence

from the Petition, and introduce new reasoning and evidence with the Reply brief. Such improper evidence should not have been considered by the Board. Failing to remove the improper supplemental information submitted on reply was especially harmful to Affinity, because there were no means by which Affinity could fully rebut the new argument and evidence information. The only means available is through a motion for observation based on deposition testimony. However, this procedure has significant restrictions as to what information can be presented and how it can be presented. *See e.g., Idle Free Systems, Inc., v. Bergstrom Inc.*, IPR2012-00027, Paper 46 at 2 (PTAB September 10, 2013). Affinity was deprived of an opportunity to submit expert testimony or other evidence to refute the new evidence and arguments improperly included in Petitioners' Reply. Furthermore, Affinity is limited to the arguments it submitted in its Patent Owner's Response, and thus has no opportunity to refute improper supplemental information submitted with the Petitioners' Reply. Affinity's ability to defend its patent rights was thereby prejudiced by the Board's decision. The Board's failure to consider and weigh these factors, relevant to the relief sought by Affinity, evidences the arbitrary and capricious nature of the Board's decision.

The Boards' Final Written Decision does not address whether the Board looked for or found evidence in the improper supplemental information in the Petitioners' Reply. Further, the Board's decision was based, in part, on Petitioners' improper new arguments and evidence related to slow charging, and through this decision, Affinity

was harmed. The Board arbitrarily and capriciously deprived Affinity of an opportunity to remove improper supplemental information from the record and subsequently failed to determine whether Petitioners' Reply contained improper supplement information. For these reasons, the Board's Final Written Decision should be reversed, and this case remanded for the Board to determine whether Petitioners' Reply argument and evidence were improper and proceedings in accordance with that determination into account in the ultimate determination of patentability.

C. The Board's decision to deny Affinity's request to file a Motion to Supplement evidence responsive to Petitioners' improper new arguments an supplemental information submitted on Reply was arbitrary and capricious.

The Board's denial of Affinity's request to file a Motion to Supplement information should be overturned as arbitrary and capricious. Late submission of supplemental information may be allowed in *inter partes* review proceedings under certain circumstances.

A party seeking to submit supplemental information more than one month after the date the trial is instituted, must request authorization to file a motion to submit the information. The motion to submit supplemental information must show why the supplemental information reasonably could not have been obtained earlier, and that consideration of the supplemental information would be in the interests-of-justice.

37 C.F.R. § 42.123. On March 9, 2014, Affinity emailed the Board seeking authorization to file a motion to submit supplemental information in accordance with the requirements of § 42.123. Ultimately, the Board decided that it would not allow

Affinity to file a motion to supplement. The Board allowed Affinity to make an offer of proof on the record, but the Board would not consider the evidence.

As described above, Affinity sought to admit evidence regarding the Elite MP3 player. In its Reply, Petitioners had for the first time relied on the Elite MP3 player to demonstrate a reasonable expectation of success in using USB to recharge portable devices. Affinity had no opportunity to rebut this improper new evidence and argument relying on the Elite MP3 player and sought an opportunity to rebut this information through a motion to supplement, seeking admission of a declaration from Mike McCoy, the CEO of the manufacturer of the Elite MP3 player. This declaration presented evidence that the Elite MP3 player was not capable of being recharged using USB, as asserted by Petitioners.

The Board's reasoning for denying Affinity an opportunity to file a motion to supplement was: "I don't think it is necessary. At this point, at this juncture, you know, the day before the hearing, and without any real vehicle to get this evidence in, we're not going to authorize the motion." *See* A334, A399-401. The Board failed to analyze relevant factors to support its decision, which was thus an arbitrary and capricious decision. By failing to allow Affinity an opportunity to submit and rely on this evidence, the Board deprived Affinity of an opportunity to adequately defend the validity of its patent.

CONCLUSION AND RELIEF SOUGHT

- I. An order vacating the Institution Decision and Final Written Decision as an unconstitutional violation of the separation of powers and a violation of Affinity's constitutional rights to have the validity of the '390 patent determined in an Article III court and before a jury under the Seventh Amendment.
- II. Reversal of the Final Written Decision that claims 16, 19, and 20 of the '390 patent are unpatentable.
- III. Reversal of the decision to not allow Affinity to file a motion to strike the improper reply evidence and an order vacating Final Written Decision that claims 16, 19, and 20 of the '390 patent are unpatentable and remand for proceedings in accordance with those rulings.
- IV. Reversal of the decision denying Affinity's request for leave to file supplemental information regarding the Elite MP3 player and an order vacating Final Written Decision that claims 16, 19, and 20 of the '390 patent are unpatentable and remanding for proceedings in accordance with those rulings.
- V. Remand for the Board for reexamination of its analysis and to provide adequate reasoning to support a finding related to obviousness.

Dated: October 27, 2015

Respectfully submitted,

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ADDENDUM

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Trials@uspto.gov
571-272-7822

Paper 40
Entered: December 11, 2014

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD;
SAMSUNG ELECTRONICS AMERICA, INC.;
SAMSUNG TELECOMMUNICATIONS AMERICA, LLC;
HTC CORP., and
HTC AMERICA, INC.
Petitioners,

v.

AFFINITY LABS OF TEXAS, LLC,
Patent Owner.

Case IPR2014-00209¹
Patent 7,953,390

Before KEVIN F. TURNER and JON B. TORNQUIST,
Administrative Patent Judges.

TURNER, *Administrative Patent Judge*.

ORDER
Conduct of the Proceeding
37 C.F.R. § 42.5

¹ Case IPR2014-00212 has been joined with the instant proceeding.

Case IPR2014-00209
Patent 7,953,390

A conference call was held on December 2, 2014, between respective counsel for the parties and Judges Turner and Tornquist. Counsel for Patent Owner initiated the call to seek authorization to file a Motion to Strike Improper Supplemental Information that Petitioners provided in their Reply to Patent Owner's Response (Paper 39). We provided the panel's decision on the conference call, where this order memorializes the discussion and decision.

Patent Owner acknowledged that there was no specific rule that allowed for the filing of a Motion to Strike, but the facts of the instant proceeding warranted such action. Patent Owner argued that Petitioners' Reply amounted to supplemental information under 37 C.F.R. § 42.123 that has been submitted late and without showings that it reasonably could not have been obtained earlier, and that its consideration would be in the interests-of-justice. Patent Owner continued that the evidence presented could have been supplied with the Petition and the new information seeks to supplement the Petition. Patent Owner also acknowledged that a Motion to Exclude would not be the right vehicle to remove the supplemental information as Patent Owner was not questioning the admissibility of that evidence at present.

Petitioner responded that the evidence presented with the Reply was rebuttal evidence. Petitioner argued that statements made in Patent Owner's Response discussed the state of the art and what one of ordinary skill in the art would have known and would have found obvious. Petitioner argued that its rebuttal evidence is necessary to show that Patent Owner had misconstrued what such skilled artisans would have known and determined to be obvious based on the recited prior art references.

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During the conference call, we indicated that we saw no reason to authorize a Motion to Strike. During the preparation of the Final Written Decision, the panel will be able to distinguish between information supplied in rebuttal to Patent Owner's Response and information that is supplied to supplement the Petition. Thus, a Motion to Strike is not necessary.

We are also cognizant that Patent Owner may wish to address the nature of the evidence supplied with the Reply in its presentation during an oral hearing. We note that, by the time the proceeding reaches final oral hearing, nothing new can be presented, no new evidence, no new arguments. *Patent Trial Practice Guide*, 77 Fed. Reg. 48756, 48768 (Aug. 14, 2012). However, per the instant Order, Patent Owner will not have the opportunity to file a response, opposition, motion, reply, declarations, observations on cross-examination, or other exhibits with respect to the information presented in the Reply. During the conference call, we suggested it may be fair to allow Patent Owner to address whether that information in the Reply exceeds the scope of proper rebuttal evidence at oral hearing, where Petitioner will have the ability to rebut such arguments. We take no specific position until such time as an oral hearing is requested, by either party, and demonstratives for such a hearing are presented.

It is

ORDERED that no authorization is given to file a Motion to Strike Improper Supplemental Information with respect to Petitioners' Reply to Patent Owner's Response.

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Paper No. 52
Entered: May 13, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD,
SAMSUNG ELECTRONICS AMERICA, INC.,¹
HTC CORP., and
HTC AMERICA, INC.,
Petitioner,

v.

AFFINITY LABS OF TEXAS, LLC,
Patent Owner.

Case IPR2014-00209
Patent No. 7,953,390 B2

Before KEVIN F. TURNER, LYNNE E. PETTIGREW, and
JON B. TORNQUIST, *Administrative Patent Judges*.

TORNQUIST, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

¹ Petitioner represents that Samsung Telecommunications America, LLC, an originally-named Petitioner in this case, was merged into Samsung Electronics America, Inc. on January 1, 2015. Paper 45, 1.

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I. BACKGROUND

Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America, LLC, LG Electronics, Inc., LG Electronics U.S.A., Inc., LG Electronics Mobilecomm USA, Inc., HTC Corp., and HTC America, Inc.² (collectively, “Petitioner”) filed Petitions in IPR2014-00209 (Paper 11, “Pet.”) and IPR2014-00212 (-00212 Paper 10, “-00212 Pet.”)³ requesting *inter partes* review of claims 16, 19, and 20 of U.S. Patent 7,953,390 B2 (“the ’390 patent”). The owner of the ’390 patent, Affinity Labs of Texas, LLC (“Patent Owner”), filed Preliminary Responses to the Petitions. Paper 19; -00212 Paper 16.

Pursuant to 35 U.S.C. § 314, the Board instituted trial as to claims 16, 19, and 20 of the ’390 patent in both proceedings. Paper 20 (“Inst. Dec.”); -00212 Paper 17 (“-00212 Inst. Dec.”). Subsequently, we joined and consolidated IPR2014–00209 and IPR2014–00212 and terminated the proceedings in IPR2014–00212. Paper 36, 3.

During trial, Patent Owner filed Patent Owner Responses (Paper 34, “PO Resp.”; -00212 Paper 32, “-00212 PO Resp.”), and Petitioner filed a consolidated Reply (Paper 39, “Reply”). Petitioner also filed a Motion to Exclude (Paper 42) portions of the Declaration of Dr. Lin Zhong (Ex. 2102), as well as certain exhibits relied upon by Dr. Zhong. Patent Owner filed an

² On July 9, 2014, we granted a request for adverse judgment submitted by LG Electronics, Inc., LG Electronics U.S.A., Inc., and LG Electronics Mobilecomm USA, Inc. Paper 30. Accordingly, the LG petitioners are no longer participating in these proceedings.

³ Documents filed in IPR2014-00209 are identified by paper number. Unless otherwise noted, documents filed in IPR2014-00212 are identified by the additional prefix “-00212.”

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Opposition to the Motion to Exclude (Paper 47), and Petitioner filed a Reply (Paper 48). An oral hearing was held on March 10, 2015 (Paper 51, “Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 16, 19, and 20 of the ’390 patent are unpatentable.

A. Related Proceeding

The parties represent that the ’390 patent is being asserted in *Affinity Labs of Texas, LLC v. Samsung Electronics Co., Ltd*, No. 1:14-cv-2717, 14-cv-2966 (N.D. Cal.) (transferred from *Affinity Labs of Texas, LLC v. Samsung Electronics Co., Ltd.*, 12-cv-557 (E.D. Tex.)). Paper 18, 1; Paper 45, 1.

B. The ’390 Patent

The ’390 patent is directed to a delivery system for digitally stored content. Ex. 1001, 1:17–19. In particular, the ’390 patent relates to the wireless delivery of media content, such as songs, video, on-line radio stations, on-line broadcasts, and text. *Id.* at 2:55–59, 3:10–15, 3:37–39, 14:41–44.

Many different wireless devices may be used to select and receive media content in the system and method of the ’390 patent, including “a network radio, a modular device, an audio system, a personal digital assistant (PDA), a cellular phone, or other electronic devices operable to receive information wirelessly.” *Id.* at 4:29–32. In at least one embodiment, the wireless device contains a physical interface that allows a different electronic device to communicate with, and to recharge the battery of, the

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wireless device using a single cable having multiple conductive elements.

See id. at 17:18–62, 20:9–20.

In one embodiment of the '390 patent, a user selects desired audio information from a webpage. *Id.* at 14:34–44. This audio information may include “a single song, a plurality [of] different songs,” or “an entire album.” *Id.* at 14:42–44. After the user finishes selecting the desired songs, the system creates both a playlist and a listing of “network or URL locations” where the songs on the playlist may be found. *Id.* at 14:44–53. The songs on the playlist then are retrieved from one or more of the listed network locations and streamed to the user. *Id.* at 5:58–6:10, 14:50–61, 15:46–51.

In one embodiment, the selected songs may be streamed to a user over a high-speed wireless communications network. *Id.* at 5:64–6:7. In this embodiment, selected content is delivered initially to the wireless device at a high transmission rate until a sufficient buffer has been established in the memory of the wireless device, and then the rest of the selected content is transmitted at a second, slower rate. *Id.*

C. Illustrative Claim

Of the challenged claims, only claim 16 is independent. Claim 16 is illustrative and reproduced below:

16. A system for content delivery, comprising:

a portable device having a display, a local rechargeable battery,
a wireless communication system, and a processor;

a physical interface of the portable device, the physical
interface configured to connect to an interface system that
includes a cable having multiple conductive elements,
wherein the physical interface is designed such that a
different electronic device can be communicatively coupled
with the physical interface of the portable device using the

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interface system in a manner that allows the different electronic device to recharge the local rechargeable battery using at least one of the multiple conductive elements and to communicate with the portable device using at least one other of the multiple conductive elements; and

a computer-readable medium having stored instructions that when executed are operable to cause the processor: (1) to present an icon on the display, the icon associated with content that is deliverable as streaming media; (2) to recognize a selection of the icon; and (3) to switch between a set of communication rates at which the portable device receives a first portion and a second portion of the content, wherein the set of communication rates comprise at least a first data rate and a second data rate that is slower than the first data rate.

Ex. 1001, 20:5–30.

D. Prior Art References Supporting Unpatentability

Reference	Publication	Date	Exhibit
Galensky	US 6,845,398 B1	Jan. 18, 2005	Ex. 1003
Bork	US 6,633,932 B1	Oct. 14, 2003	Ex. 1004
Hitson	US 2002/0010759 A1	Jan. 24, 2002	Ex. 1103
Fuller	US 6,711,622 B1	Mar. 23, 2004	Ex. 1106

E. The Alleged Grounds of Unpatentability

We instituted this proceeding on the grounds of unpatentability set forth in the table below. Inst. Dec. 14; -00212 Inst. Dec. 16.

References	Basis	Claims
Galensky and Bork	§ 103	16, 19, and 20
Hitson, Bork, and Fuller	§ 103	16, 19, and 20

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II. ANALYSIS

A. *Claim Interpretation*

In both Decisions to Institute, we construed the term “a listing of network locations at which to access the streaming media” to mean “a listing of network locations at which content that is to be delivered as streaming media may be accessed.” Inst. Dec. 8; -00212 Inst. Dec. 8. At this stage of the proceeding, neither party disputes this construction or suggests that any other claim term requires construction. Tr. 67:3–11. As such, we adopt our previous construction of “a listing of network locations at which to access the streaming media,” and will give the remaining claim terms their broadest reasonable construction in light of the specification. *See* 37 C.F.R. § 42.100(b).

B. *Obviousness of Claims 16, 19, and 20 over Galensky and Bork*

Petitioner contends that claims 16, 19, and 20 are unpatentable under 35 U.S.C. § 103 over the combination of Galensky and Bork. Pet. 18–34. In support of its argument, Petitioner provides a claim chart, demonstrating where Galensky and Bork disclose each limitation of the challenged claims, and the declaration testimony of Schuyler Quackenbush, Ph.D. *Id.* at 24–34; Ex. 1015 (initial declaration); Ex. 1020 (rebuttal declaration). Patent Owner responds, relying on the declaration testimony of Dr. Zhong. PO Resp. 4–24 (citing Ex. 2029).⁴

⁴ On October 9, 2014, we granted Patent Owner’s request to expunge Dr. Zhong’s originally-filed Declaration (Exhibit 2002), and replace it with Ex. 2029. Paper 37, 2. Thus, we interpret all citations in the Patent Owner Response to Exhibit 2002 to be citations to Exhibit 2029.

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1. Galensky

Galensky is directed to a “system, method and portable, wireless device for receiving, playing and storing streamed multimedia files over a wireless telecommunications network.” Ex. 1003, 3:13–17. The portable device of Galensky includes a display, a rechargeable battery, a wireless transmitter, and a microprocessor. *Id.* at 4:1–33. The wireless device also contains various input controls for operating the device and for selecting multimedia files to be streamed from the multimedia server. *Id.* at 4:42–48.

In the Galensky system, the media server “either stores multimedia files or a list of particular multimedia files and their respective address/location.” *Id.* at 5:7–9. When a wireless device connects to the media server, the system transmits a list of these available files and songs to the user. *Id.* at 5:18–24. The user then may view this list on the visual display of the wireless device and, using the input controls, select desired songs or videos for streaming. *Id.* at 5:18–42. Galensky discloses initially streaming the desired content to a user at a high transmission rate. *Id.* at 5:66–6:27. Then, once a sufficient buffer has been established in the memory of the wireless device, the wireless device signals that a second, lower rate may be used. *Id.*

2. Bork

Bork is directed to a Universal Serial Bus (“USB”) interface and cable. Ex. 1004, Abstract. The disclosed USB cable has multiple conductive elements, allowing an electronic device to simultaneously communicate with, and recharge the battery of, a portable device. *Id.* at 5:12–14, 5:41–43, 6:66–7:12, 8:18–28. According to Bork, this single cable system has numerous advantages. *Id.* at 2:54–63. First, a bulky electrical

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power transformer is not required for the portable device, saving both space and the cost of the transformer. *Id.* at 2:54–63, 5:5–15, Figs. 21, 22.

Second, a single cable can be used to synchronize data and download software updates while the battery of the portable device is being recharged. *Id.* at 4:17–24, 4:47–55, Fig. 22. Finally, a laptop computer running solely on battery power can recharge the battery of a portable device, which Bork discloses is useful when another source of power is unavailable. *Id.* at 8:18–28.

3. Analysis

Petitioner provides detailed analysis showing where each limitation of claims 16, 19, and 20 is disclosed in Galensky and Bork. Pet. 18–34. With respect to the rationale for modifying Galensky to include Bork’s multifunctional cable and physical interface, Petitioner contends that one of ordinary skill in the art⁵ would have sought to incorporate these features in Galensky’s portable device in light of the numerous advantages expressly set forth in Bork. *Id.* at 18–24. Petitioner further contends that the obviousness of the challenged claims is confirmed by the fact that “each element (*e.g.*, Bork’s USB for recharging the battery and Galensky’s portable device with data connectivity and switching communication rates) merely performs the same function as it does separately, yielding only predictable results.” *Id.* at

⁵ The parties appear to agree that one of ordinary skill in the art would hold a bachelor’s degree in Electrical Engineering or Computer Science, or an equivalent field, and have approximately one or two years of experience working with client/server architectures, Internet transmission protocols, Internet browser programming, and streaming media transmission. *See* Pet. 18; Ex. 2029 ¶ 12. Although the phrasing used by the parties to describe one of ordinary skill in the art varies slightly, neither party asserts that these differences would affect the outcome of this case.

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24; *see also KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007) (noting that “when a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious”) (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

Patent Owner asserts that the challenged claims would not have been obvious over Galensky and Bork because: (a) Galensky teaches away from using a physical interface to transfer data; (b) the power supplied by the USB interface of Bork is insufficient to recharge the battery of the claimed portable media device; (c) market and design pressures would have directed one of ordinary skill in the art away from using “a large USB interface” in a portable media device; and (d) even as late as 2003, designers and engineers did not contemplate using the same physical interface for both charging and data communication. PO Resp. 8–24. We address each of these arguments in turn.

a. Teaching Away

Patent Owner argues that Galensky teaches away from incorporating Bork’s physical interface, because adding such an interface “would completely frustrate” Galensky’s purpose of providing “a portable device capable of playing multimedia files . . . without first having to download the preselected files from the user’s computer for ultimate transfer and storage in the portable device prior to playing.” PO Resp. 9–10 (citing Ex. 1003, 1:60–2:1); Ex. 2029 ¶¶ 44–47.

As noted by Dr. Quackenbush, however, Galensky does not teach or suggest that the presence of a physical interface would hinder the disclosed method of wirelessly providing multimedia files to a portable device.

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Ex. 1020 ¶¶ 12–13. Nor does Galensky suggest that the portable device should never be connected to another device via a physical interface, or that the portable device should be synchronized or recharged wirelessly—advantageous uses of a wired connection disclosed in Bork. *See id.* ¶¶ 12–14; Ex. 1004, 4:17–24, 4:47–5:15, 8:18–28, Fig. 22. As such, when the disclosures of Galensky and Bork are considered as a whole, we are not persuaded that Galensky teaches away from incorporating a physical interface in the disclosed portable device. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (noting that for a reference to teach away it must “criticize, discredit, or otherwise discourage” the claimed solution).

b. Power Sufficient to Recharge the Battery

Patent Owner also argues that a person of ordinary skill in the art would not have found it obvious to combine Galensky and Bork because USB Specification Revision 1.1 (“USB 1.1”)—incorporated by reference in Bork—indicates that the USB interface was capable of providing a peak charging current of 500 mA, which Patent Owner contends was insufficient to recharge the high capacity battery required in the claimed devices of the ’390 patent. PO Resp. 14–15, 18 (asserting that it “was not physically possible” for the USB interface of Bork “to recharge the battery of the portable device”), Table 1. According to Patent Owner, the USB 1.1-compliant interface was designed only to power peripherals, such as a USB keyboard or mouse, which “generally consume power lower by orders of magnitude than that which would be required to recharge the battery of a portable media player.” *Id.* at 15.

Testifying in support of Patent Owner, Dr. Zhong asserts that the process of recharging a “common lithium-ion battery” occurs in two steps.

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Ex. 2029 ¶ 63. In the first step, “the battery is charged with a fixed high current,” usually close to the current the battery can provide for one hour, or 1C.⁶ *Id.* In the second step, the battery is charged with a variable, low current and “monitored so that the battery’s voltage remains about constant.” *Id.*

Dr. Zhong testifies that in 2000, “power-hungry” wireless media players, similar to the device claimed in the ’390 patent, had battery capacities of 1400 mAh or higher, requiring an initial charging current close to 1400 mA, or almost three times the 500 mA maximum charging current that USB 1.1 could provide. *Id.* ¶¶ 64–65. Dr. Zhong further testifies that “the output current and voltage for charging must be monitored, regulated, and varied in a battery-specific manner during the charging procedure,” and the USB 1.1 standards do not provide this capability. *Id.* ¶¶ 66–67. Dr. Zhong contends that, had one ignored these issues and recharged the portable devices of the ’390 patent using a USB 1.1-compliant interface and cable, one “would risk reducing the battery’s capacity and cycle time (the amount of times it can be charged and discharged) and overheating or resetting the computer hosting the USB.” *Id.* ¶ 67.

⁶ Dr. Quackenbush explains:

Battery **capacity**, designated as “C,” is typically expressed in Amp hours or mA hours (“mAh”). Charging **current** is typically expressed in units of C-Rate, and thus relates the charging current to the battery capacity. For example, if a 1000 mAh battery is recharged at a rate of 1C, the charging current is 1000 mA. If the same 1000mAh battery is recharged at a rate of 0.1C, the charging current is 100 mA.

Ex. 1020 ¶ 31 (internal citations omitted).

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Petitioner presents evidence, however, that one of ordinary skill in the art would have understood that, in addition to the charging method discussed by Dr. Zhong, a slow charging method—using a charging current between 0.05 and 0.1 C—would be not only acceptable, but recommended. For example, a National Institute of Science and Technology publication states:

Slow charge rates (between 0.05 C and 0.1 C) are the most-often recommended charge rate, since a battery can be recharged in less than a day, without significant probability of damaging or degrading the battery.

Ex. 1027, 36 (§ 6.3); Ex. 1020 ¶ 30. Likewise, the book *Practical Design Techniques for Power and Thermal Management* indicates that a charging current of 0.1C is acceptable when using the slow charge method. Ex. 1028, § 5.6 (Fig. 5.7); *see also* Ex. 1020 ¶¶ 29, 32 (Dr. Quackenbush testifying that one of ordinary skill in the art would have understood that batteries could be recharged successfully at rates as low as 0.1C).

When applied to the 1400 mAh battery example discussed by Dr. Zhong, this slow charge method would require only a 140 mA charging current (0.1C), a current level well below the 500 mA charging current available in USB 1.1-compliant interfaces.⁷ Ex. 1020 ¶¶ 38, 41. Moreover, both references cited by Petitioner indicate that, in contrast to the fast charging methods discussed by Dr. Zhong, slow charging methods do not require sophisticated charge monitoring or regulating capabilities. *See* Ex. 1027, 36 (§ 6.3) (“Slow charge rates can be applied to a battery for an indefinite period of time, meaning that the battery can be connected to the

⁷ Although this slow charging method would take up to 16 hours to recharge the battery of the portable device, the challenged claims do not specify a particular recharging rate for the physical interface and cable. *See* Ex. 1028, Fig. 5.7; Ex. 1001, 20:5–30.

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charger for days or weeks with no need for special shut-off or current-limiting equipment on the charger.”); Ex. 1028, § 5.5 (“Slow charging (charge time greater than 12 hours) requires much less sophistication and can be accomplished using a simple current source.”); *see also* Ex. 1004, 7:13–47 (disclosing that the USB cable has a voltage regulator).

Based on the foregoing, and upon review of the record as a whole, we are not persuaded by Patent Owner’s argument that Bork’s USB 1.1-compliant interface and cable would have been incapable of recharging the claimed portable devices of the ’390 patent.

c. Market and Design Pressures

Patent Owner asserts that in order to accommodate the “Standard B receptacle” provided in USB 1.1, the opening on a device must be at least 7.78 mm high and 8.45 mm wide, and “would probably need to be at least 15 mm or more thick” to be “mechanically sound.” PO Resp. 21 (citing Ex. 2002 ¶¶ 71–72; Ex. 1011, 105). According to Patent Owner, in 2000 one of ordinary skill in the art would have avoided adding such “a large component” to a portable device because market and design pressures “demanded that portable devices be as small as possible.” *Id.* at 20–21. In support of this argument, Patent Owner notes that the thickness of the first generation iPad was 13.9 mm, the Motorola RAZR v3 13.7 mm, the Palm Tungsten E 12mm, the first generation iPad Touch 8mm, and the most recent iPad Air 7.5mm. *Id.* at 21–22.

We are not persuaded by this argument. First, there is no limitation on the size of the portable device in the challenged claims, nor a suggestion in the ’390 patent Specification that a relatively large physical interface would render the device unacceptable for its intended purpose. Second,

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Petitioner presents evidence that several portable devices available as of the effective filing date of the '390 patent were “more than thick enough to fit USB’s ‘standard B receptacle.’” Reply 11 (citing Ex. 1020 ¶¶ 48–51); Ex. 1031, 4, 8, 35 (Nomad II with standard USB connector). Thus, we are not persuaded that market pressures would have prevented or dissuaded one of ordinary skill in the art from combining Galensky and Bork. *See KSR*, 550 U.S. at 417 (noting that the predictable use of prior art elements according to their established functions is obvious).

d. Use of USB in Commercial Products

Patent Owner contends that “[t]he developmental history of portable devices demonstrates that in 2000, it would not have been obvious for one of skill to use a USB 1.1 port and cable for both transferring data and recharging batteries.” PO Resp. 24. In support, Patent Owner asserts that “leaders in the portable device industry,” such as Nokia, Palm, and Motorola, did not implement USB to recharge batteries of portable devices until “years after the priority date of the '390 patent.” *Id.*

We are not persuaded by this argument. Bork expressly discloses using a USB 1.1 port and cable to both recharge and communicate with a portable device, such as a cell phone. *See, e.g.*, Ex. 1004, 4:10–25, 6:27–42. Subsequent commercial decisions by market participants as to whether to actually use this interface do not limit or constrain this express disclosure. Moreover, any alleged lack of commercial implementation is of limited probative value here because Patent Owner has not demonstrated that the lack of commercial implementation was due to an inability to use the physical interface to both recharge a battery and transfer data, as opposed to other design considerations or consumer preferences. *See, e.g.*, PO Resp. 23

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(asserting that, prior to March 28, 2000, “consumers were accustomed to AC adapters”).

4. Conclusion

Upon review of Petitioner’s and Patent Owner’s arguments and evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 16, 19, and 20 of the ’390 patent are unpatentable under 35 U.S.C. § 103 as obvious over Galensky and Bork.

C. Obviousness of Claims 16, 19, and 20 over Hitson, Bork, and Fuller

We also instituted trial to determine whether claims 16, 19, and 20 of the ’390 patent are unpatentable under 35 U.S.C. § 103 as obvious over Hitson, Bork, and Fuller. Inst. Dec. 16.⁸

1. Hitson

Hitson relates to a system and method for delivering multimedia content to a computer, portable media player, or other electronic device. Ex. 1103, Abstract. In Hitson, the portable media player may connect to another device or a server through either a wireless or wired connection, including a USB cable connection. *Id.* ¶¶ 5, 39, 50. At least one of the portable media players disclosed in Hitson—the Cassiopeia E-105—has a display, a rechargeable battery, a processor, and memory. *Id.* ¶ 5; Ex. 1118 ¶¶ 37–38 (citing Ex. 1111, 1–3). This device came equipped with the Windows CE operating system, a Web Browser, and “connectivity to the desktop through ActiveSync technology.” Ex. 1111, 2.

In the Hitson system, multimedia content is stored in one or more media databases, which are accessible through one or more web servers.

⁸ Citations in Section C are to filings in IPR2014-00212.

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Ex. 1103 ¶ 131. Using a web browser, a user may view a list of this available content, select desired songs or video, and request that the selected songs and video be streamed to the portable media player. *Id.* ¶¶ 76, 112–113, 131, 133. The transmission rate for the streaming content is determined “through software, hardware, or by asking a user.” *Id.* ¶ 70. For example, the user may inform the system that a “narrowband” or “broadband” connection is available. *Id.* at Fig. 3.

2. *Fuller*

Fuller is directed to a system and method for providing streaming audio and video to users. Ex. 1106, Abstract. In Fuller, a web browser is used to review and select available content on a network. *See id.* at 4:46–49, 8:30–36, Figs. 1–3. This available content may include links for, among other things, an audio jukebox or a live radio broadcast. *Id.* at Fig. 3. After a user selects desired content, the selected items then are streamed to the user. *Id.* at 2:57–59, 8:30–36.

In Fuller, the server transmits one or more Java applets to the client device. *Id.* at 8:37–41. These Java applets serve both to decode the streaming audio data and to monitor the rate at which the client receives and processes information from the server. *Id.* at 8:37–41, 10:11–17. If a Java applet determines that the client is not receiving the audio or video data at a sufficient rate, the applet can instruct the server to reduce the rate of transmission to “more appropriately match the bandwidth availability of the client.” *Id.* at 10:11–17.

3. *Analysis*

Petitioner contends that the combination of Hitson, Bork, and Fuller discloses each limitation of claims 16, 19, and 20. In particular, Petitioner

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asserts that Hitson discloses using a portable device to control the acquisition of streaming media, as well as a device having a display, rechargeable battery, wireless communications module, and processor.

Pet. 25–38. Petitioner further asserts that Bork discloses the claimed physical interface and Fuller discloses a method of switching between a first, higher transmission rate and a second, slower rate. *Id.* at 21–23.

With respect to the rationale for combining these references, Petitioner argues that one of ordinary skill in the art would have sought to modify Hitson to implement Fuller’s method of monitoring and adjusting the transmission rate, in order to ensure that the input buffer does not run out of data, resulting in the audio decoder outputting silence. *Id.* at 24. In support of this argument, Petitioner relies upon the declaration testimony of Dr. Quackenbush. *Id.* (citing Ex. 1118 ¶¶ 61–62). Dr. Quackenbush, however, provides no evidence or citation to establish that Hitson actually utilizes an input buffer, nor does Dr. Quackenbush explain why a person of ordinary skill in the art would have understood that Hitson necessarily contains such a buffer. Ex. 1118 ¶¶ 61–62; 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). The Petition also fails to point to any such input buffer in Hitson. Pet. 18–25. Absent evidence of an input buffer in Hitson, it is not evident from the Petition why one of ordinary skill in the art would have sought to modify Hitson to incorporate Fuller’s method of transmission rate switching. Accordingly, we are not persuaded that claims 16, 19, and 20 would have been obvious under 35 U.S.C. § 103 over Hitson, Bork, and Fuller.

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D. Petitioner's Motion to Exclude

Petitioner moves to exclude the testimony of Dr. Zhong. Paper 42. Specifically, Petitioner asserts that Dr. Zhong's testimony lacks sufficient basis under Rule 702 of the Federal Rules of Evidence. *Id.* at 7, 10.

In its motion, Petitioner concedes that "the Board, sitting as a non-jury tribunal with administrative expertise, is well-positioned to determine and assign the appropriate weight to be accorded to the evidence presented by both Petitioner and Patent Owner in this patent invalidity trial without the need for formal exclusion" (*id.* at 4), but submits that, should the Board decide "to adhere strictly to the Rules of Evidence," Dr. Zhong's testimony should be excluded. *Id.* at 2.

We agree that the Board, sitting as a non-jury tribunal, is well-positioned to assign appropriate weight to the evidence without the need for formal exclusion. Moreover, we need not reach the merits of Petitioner's Motion to Exclude because we either have not considered the evidence in question (ground based on Fuller) or have decided the issue in Petitioner's favor. Accordingly, Petitioner's Motion to Exclude is *dismissed as moot*.

E. Patent Owner's Constitutionality Challenge

Patent Owner contends that the present *inter partes* review proceeding deprives it of its Seventh Amendment right to a jury trial. PO Resp. 24; -00212 PO Resp. 27. Patent Owner indicates, however, that it is not asking the Board to rule on the constitutionality of these proceedings at this time, but raises the issue in order to preserve the argument on appeal. PO Resp. 25; -00212 PO Resp. 27. Thus, we do not address this argument.

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IV. ORDER

It is

ORDERED that claims 16, 19, and 20 of the '390 patent are
unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude Evidence
is *dismissed as moot*;

FURTHER ORDERED that this is a Final Written Decision, and,
therefore, parties to the proceeding seeking judicial review of the decision
must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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(12) **United States Patent**
White et al.

(10) **Patent No.:** **US 7,953,390 B2**

(45) **Date of Patent:** ***May 31, 2011**

(54) **METHOD FOR CONTENT DELIVERY**

(75) Inventors: **Russell W. White**, Austin, TX (US);
Kevin R. Imes, Austin, TX (US)

(73) Assignee: **Affinity Labs of Texas, LLC**, Austin, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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(21) Appl. No.: **12/495,190**

(22) Filed: **Jun. 30, 2009**

(65) **Prior Publication Data**

US 2009/0264110 A1 Oct. 22, 2009

Related U.S. Application Data

(63) Continuation of application No. 12/015,320, filed on Jan. 16, 2008, now Pat. No. 7,778,595, which is a continuation of application No. 10/947,755, filed on Sep. 23, 2004, now Pat. No. 7,324,833, which is a continuation of application No. 09/537,812, filed on Mar. 28, 2000, now Pat. No. 7,187,947.

(51) **Int. Cl.**
H04M 1/00 (2006.01)

(52) **U.S. Cl.** **455/410; 455/556.1; 455/557**

(58) **Field of Classification Search** None
See application file for complete search history.

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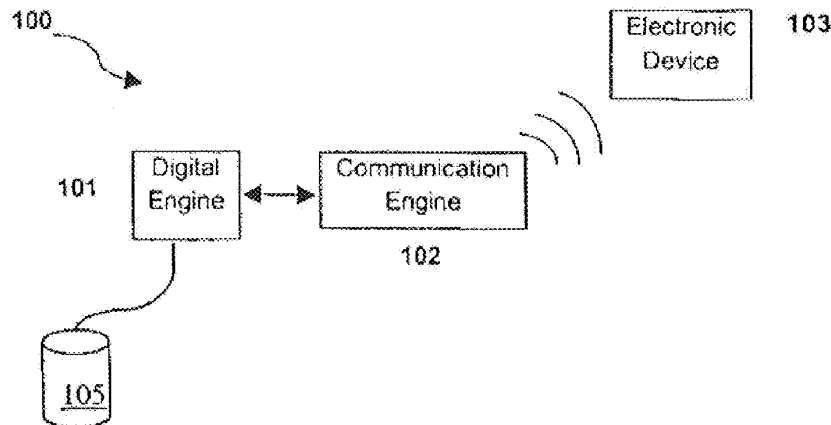
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Primary Examiner — Erika A Gary

(57) **ABSTRACT**

A method for content delivery is disclosed. The method provides a digital engine accessible by a wireless communication device via an information network, maintains selectable content digitally formatted, receives a user selection of a content file, initiates transmission of the content file to the wireless communication device for storage and processing, and initiates transmission of additional information associated with the content file to the wireless communication device.

20 Claims, 9 Drawing Sheets



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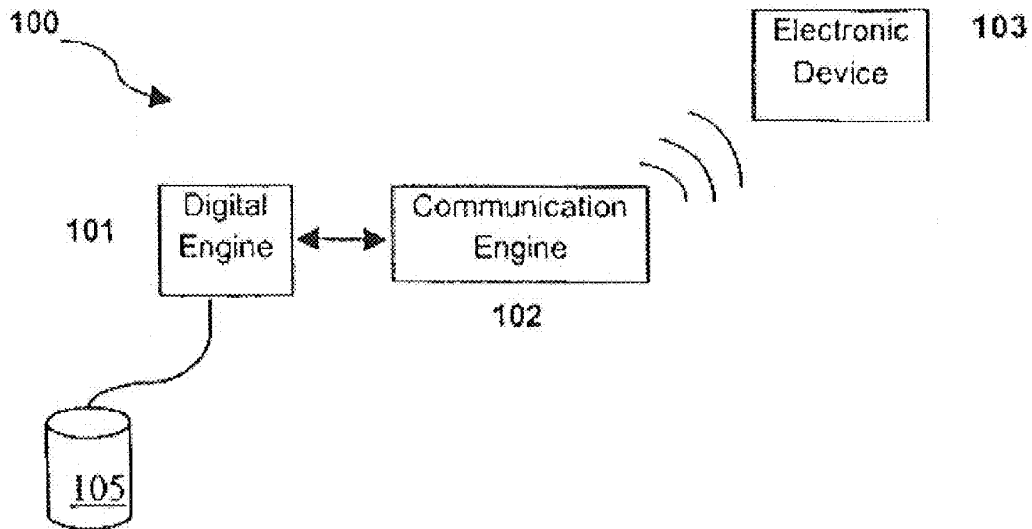


FIG. 1

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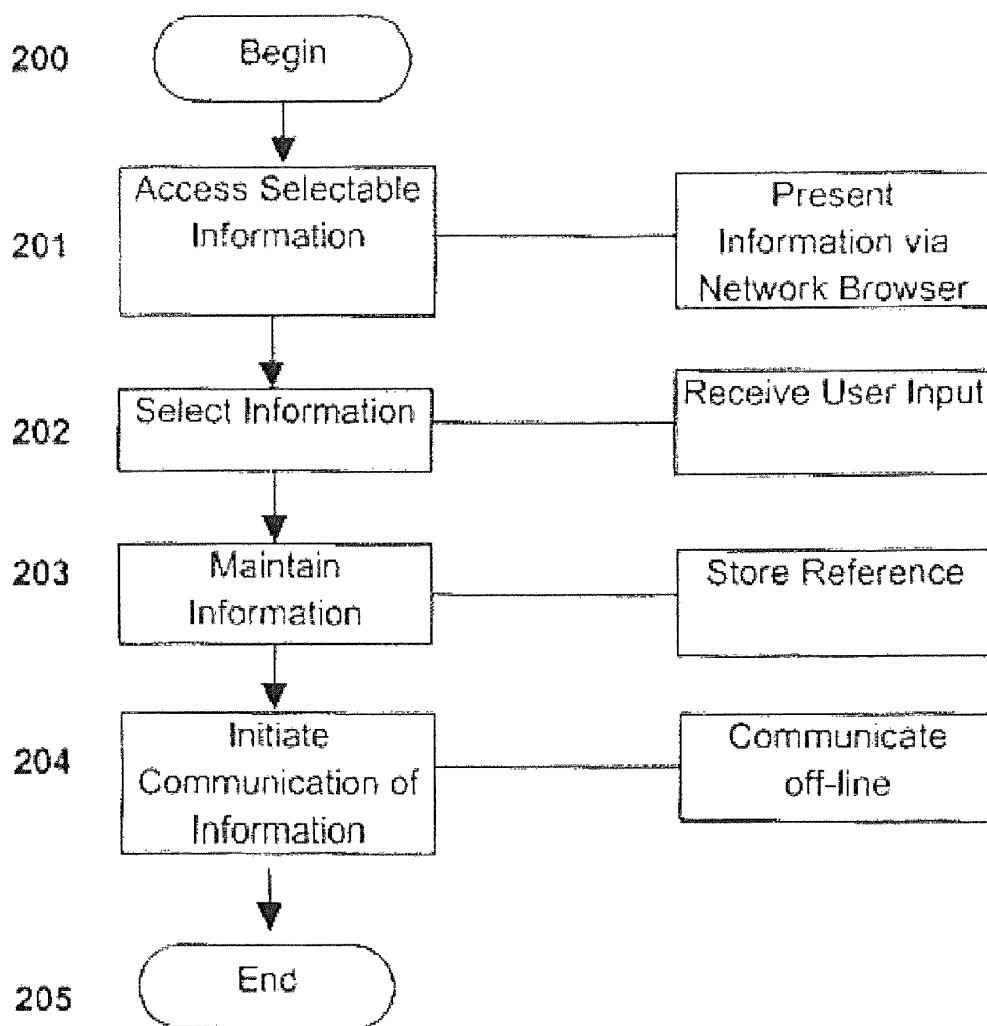


FIG. 2

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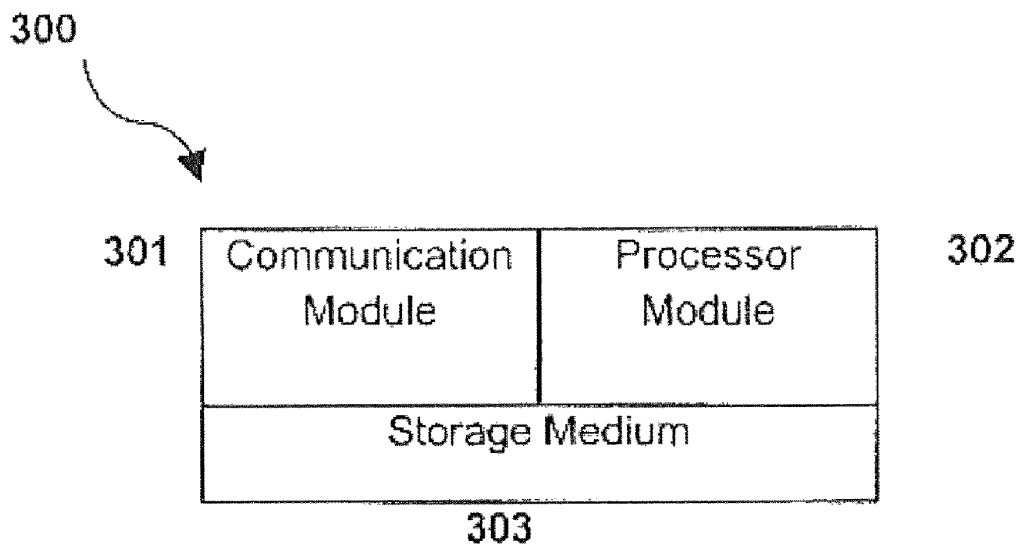


FIG. 3

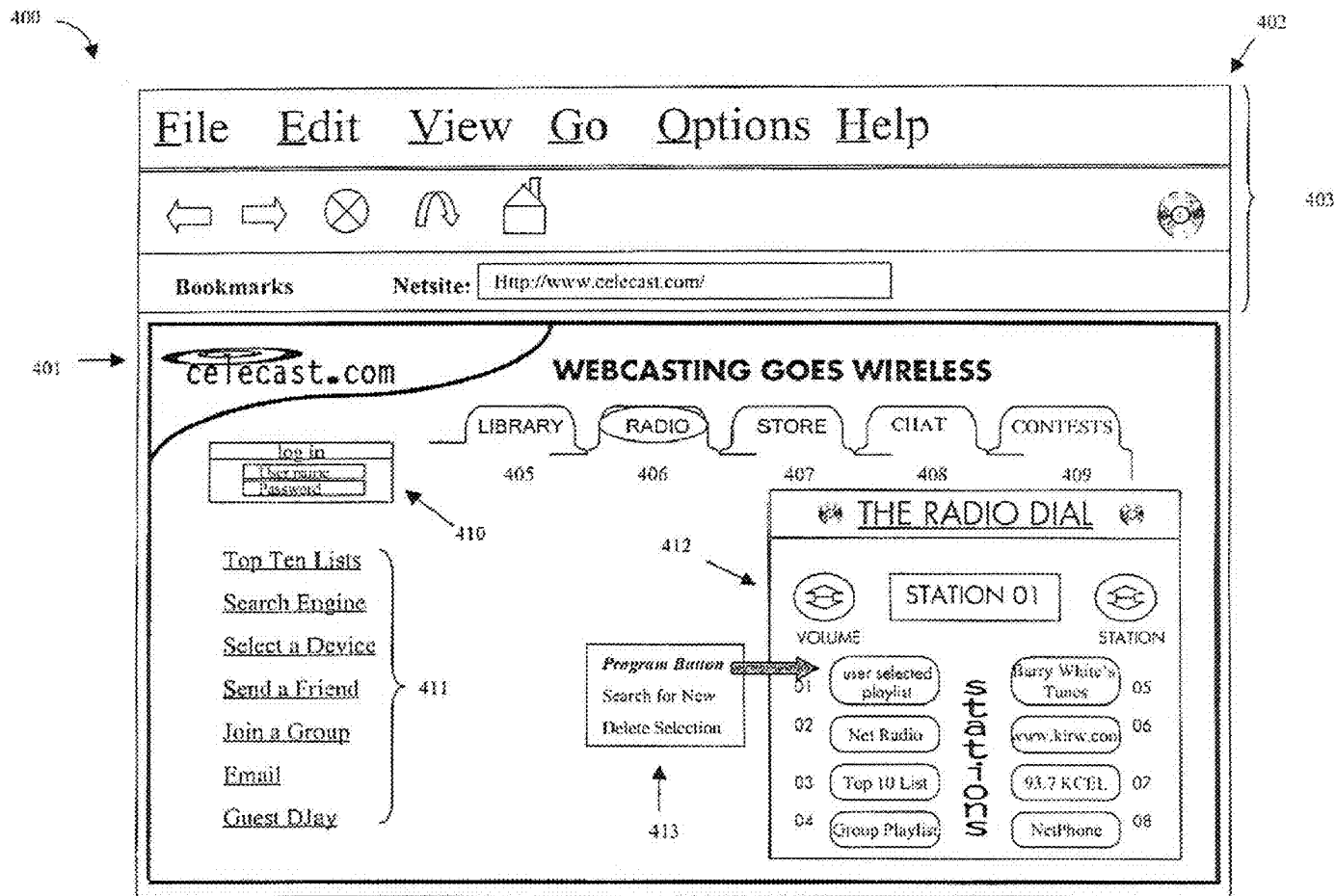


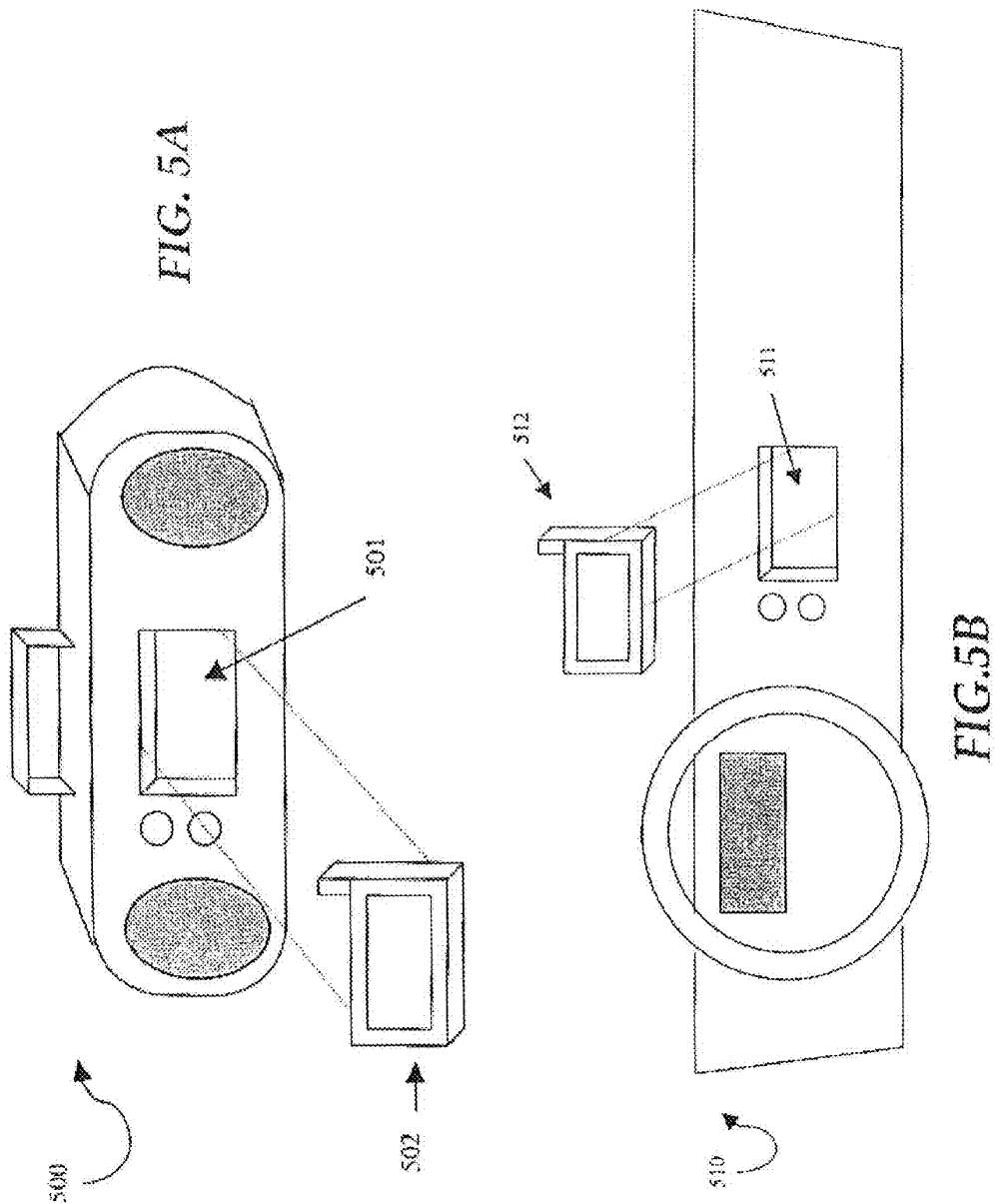
FIG. 4

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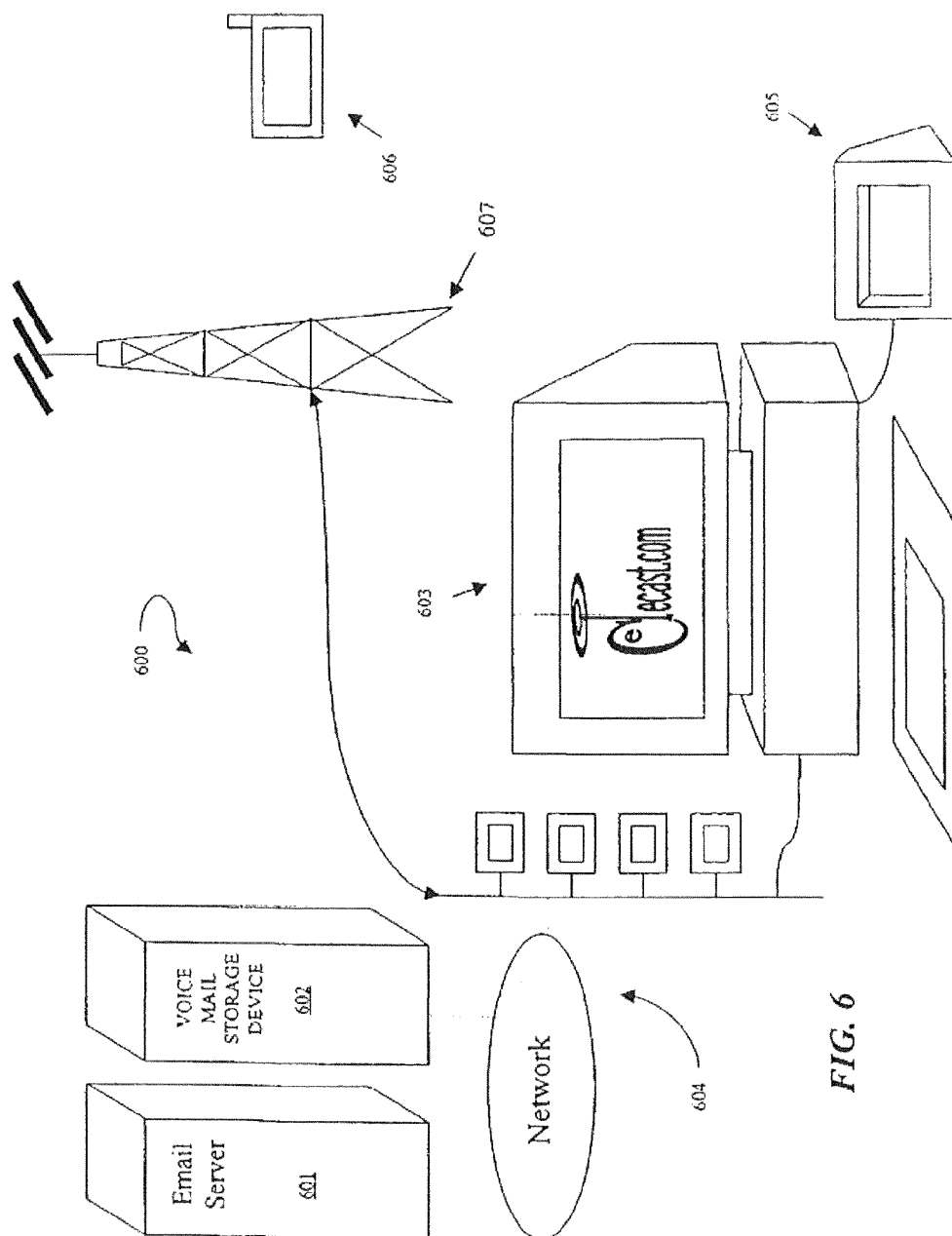


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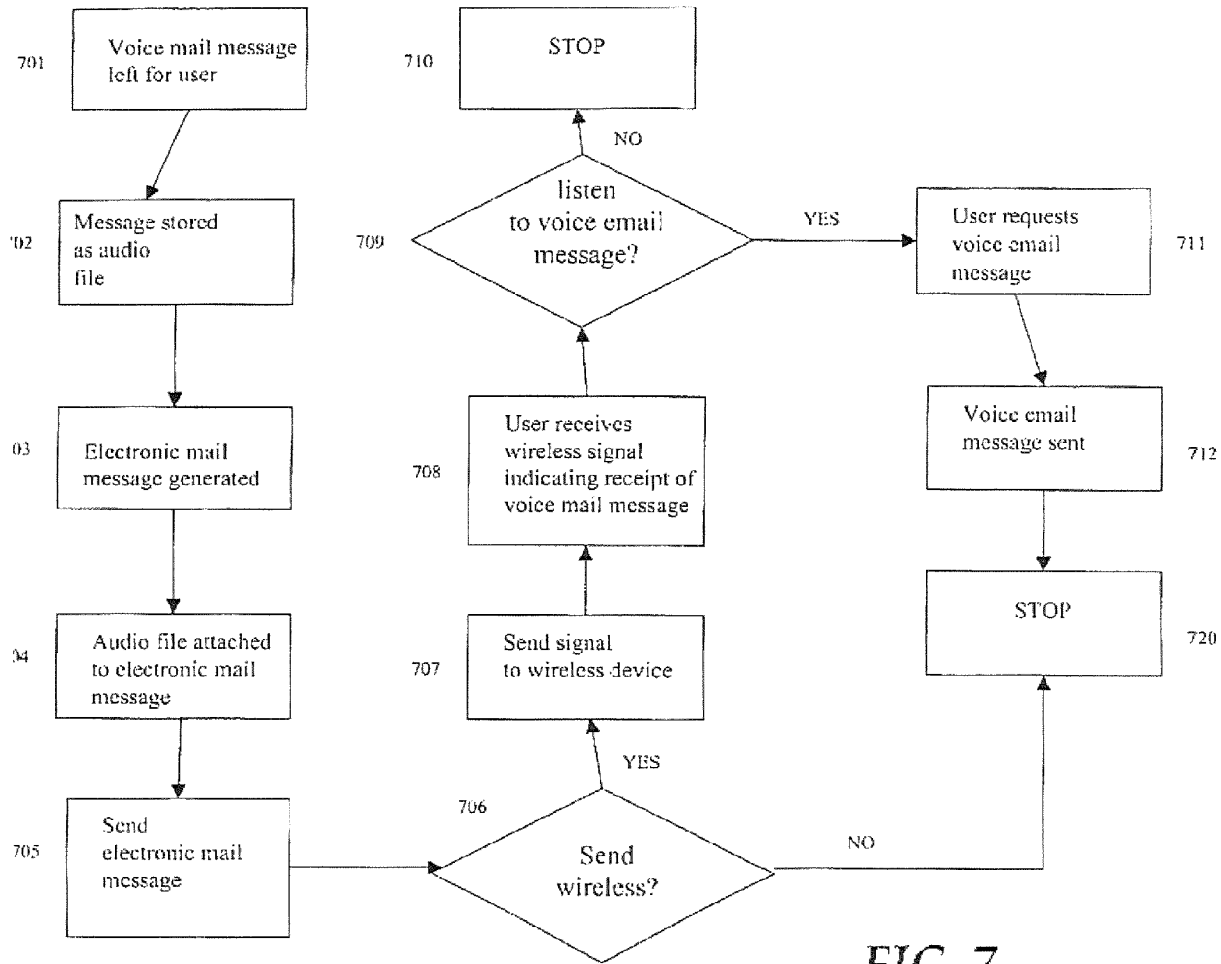


FIG. 7

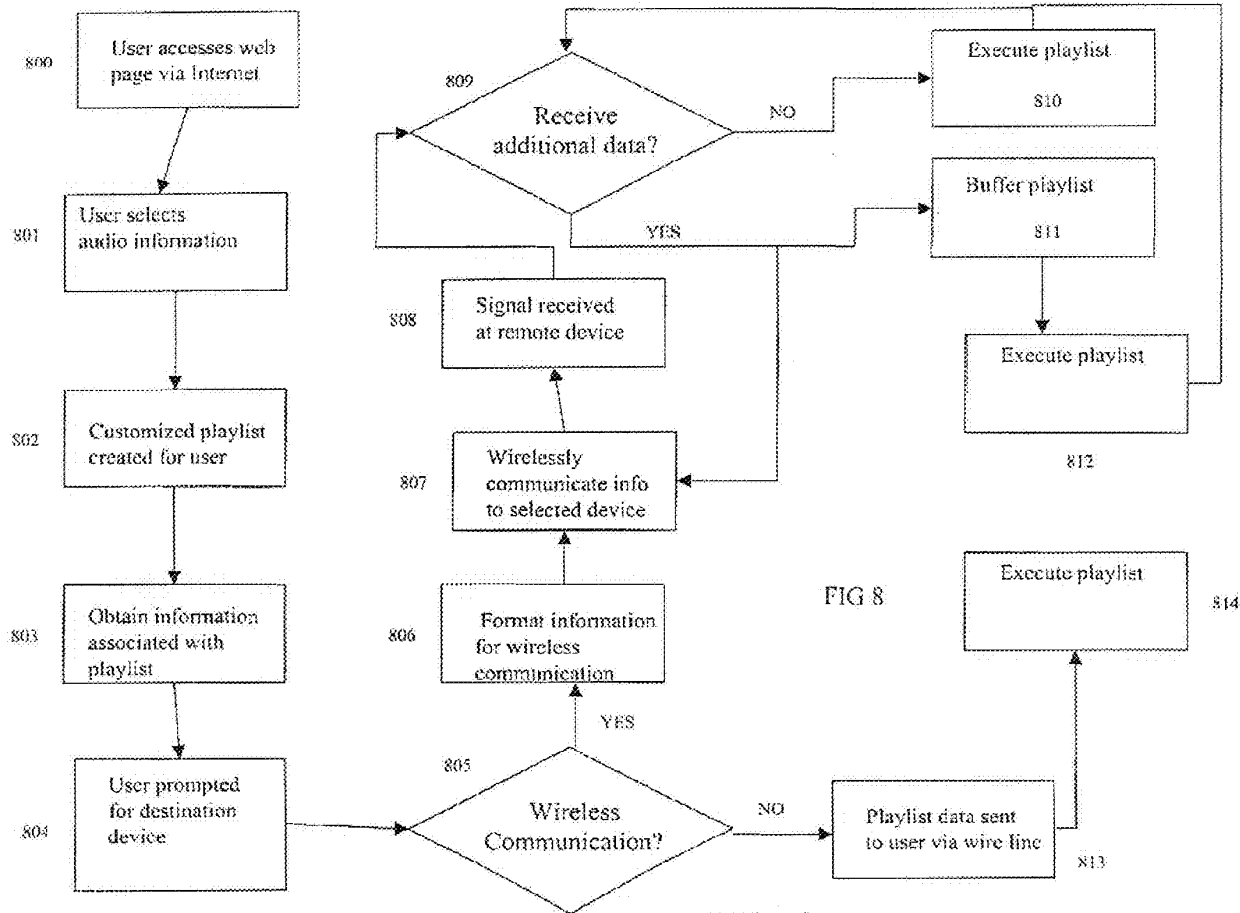


FIG. 8

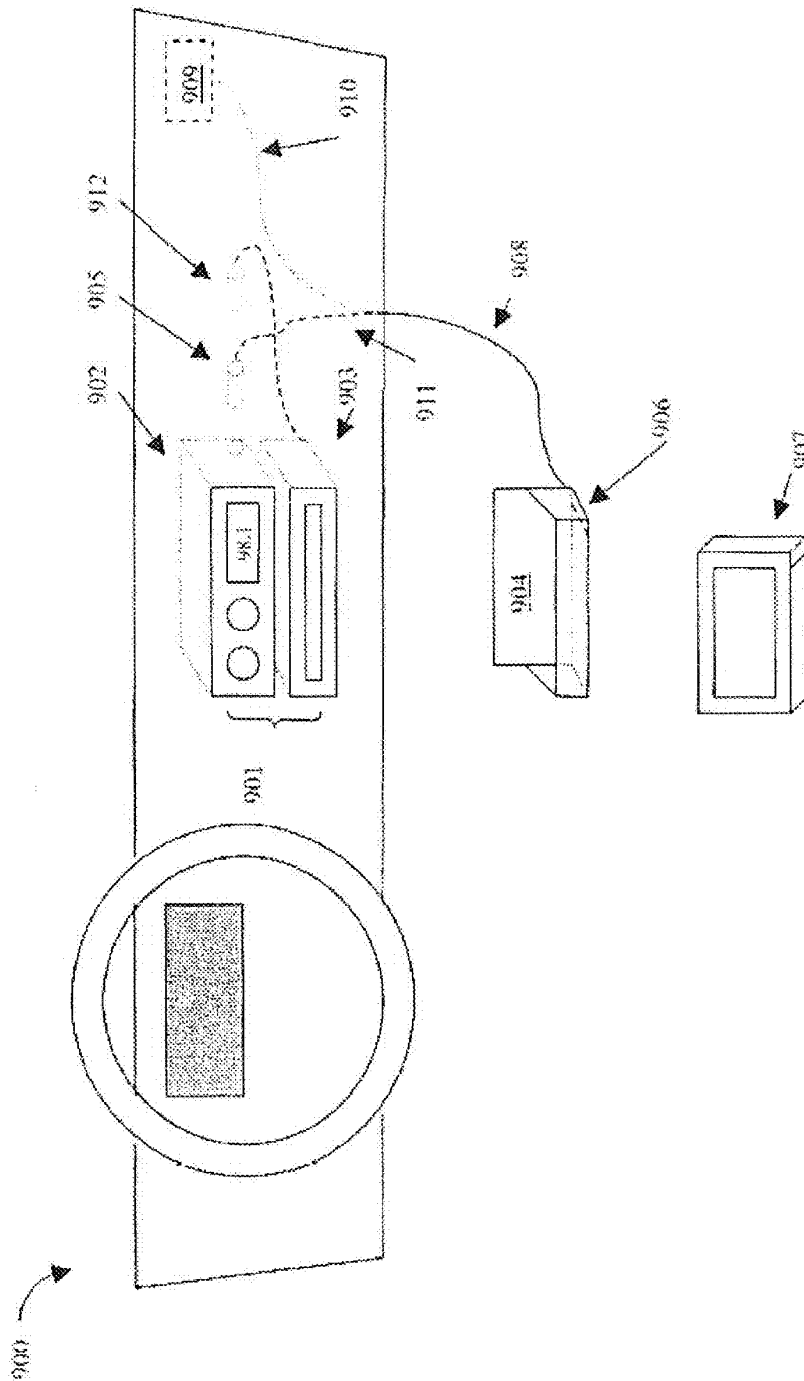


FIG. 9

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METHOD FOR CONTENT DELIVERY

This application is a continuation of U.S. patent application Ser. No. 12/015,320, filed Jan. 16, 2008, which is now U.S. Pat. No. 7,778,595, which issued on Aug. 17, 2010 entitled "Method for Managing Media," which is a continuation of U.S. patent application Ser. No. 10/947,755, filed on Sep. 23, 2004, now U.S. Pat. No. 7,324,833, which issued on Jan. 29, 2008, which is a continuation of U.S. patent application Ser. No. 09/537,812, filed on Mar. 28, 2000, which is now U.S. Pat. No. 7,187,947, which issued on Mar. 6, 2007, the disclosures of which are all hereby incorporated herein by reference in their entirety for all purposes.

FIELD OF THE DISCLOSURE

The present disclosure relates to digitally stored content and, more specifically, to a content delivery system and method.

BACKGROUND

The first commercial radio stations in the United States began operation around 1920. Today, there may be as many as 12,000 radio stations in the United States programming in several distinct formats. When broadcasting their respective signals, these radio stations often use an analog signal, which may be modulated based on frequency or amplitude. Frequency modulated (FM) radio appears to be the dominant entertainment medium while amplitude modulated (AM) radio seems to be a popular outlet for news and information.

Unfortunately, analog radio may be unable to provide the sound quality and consistency that radio listeners desire. As such, several broadcasting related companies have begun to consider a movement to digital radio. Unlike analog radio reception, digital radio reception may be able to provide compact disk (CD) quality sound while remaining virtually immune to interference. Being immune to interference may result in reducing static growls or "multipath" echoes, echoes caused by signal reflections off buildings or topographical features.

Some countries, like Canada and many European countries, may choose to have digital radio operate in a single digital radio band such as the L-Band between 1452-1492 megahertz (MHz). This band would allow the reception of both terrestrially and satellite-originated signals. By comparison, FM radio typically operates between 88 and 108 MHz while AM radio typically operates between 0.525 and 1.705 MHz. Neither of these bands allows for easy transmission via satellite.

Canada proposed using the L-Band for digital radio as early as 1992. Several countries throughout the world have since agreed to use the L-Band for digital radio with one notable exception. It appears the United States has chosen not to operate its digital radio within the L-Band. In the United States, the L-Band may already be committed for military uses. Apparently, the United States plans to adopt a system called in-band on-channel, or IBOC, which fits within the AM and FM frequencies.

IBOC technology may offer some advantages over L-Band transmissions. For example, there may be no need for new spectrum allocations. There may be backward and forward compatibility with existing AM and FM systems on both the transmitter and receiver sides, and there may be a low-investment upgrade to digital systems. Unfortunately, a workable IBOC solution is yet to be seen though technology may someday make IBOC digital radio commercially possible.

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Even if an IBOC solution becomes commercially available in the United States, IBOC digital radio may suffer from several shortcomings. For example, there may global standardization problems. Though the United States favors IBOC, the European and Canadian communities seem to favor L-Band making the establishment of a global standard difficult.

BRIEF DESCRIPTION OF THE DRAWINGS

A more complete understanding of the present embodiments and advantages thereof may be acquired by referring to the following description taken in conjunction with the accompanying drawings, in which like reference numbers indicate like features, and wherein:

FIG. 1 depicts a general system for wirelessly communicating selective information to an electronic device in accordance with one aspect of the present invention;

FIG. 2 illustrates a block diagram of a method of wirelessly communicating selected information to an electronic device;

FIG. 3 illustrates an electronic device operable to receive selected audio information in accordance with the teachings of the present invention;

FIG. 4 illustrates a graphical user interface (GUI) for displaying selectable audio information according to one aspect of the present invention;

FIG. 5A illustrates a portable radio system having a mount for an electronic device according to one embodiment of the present invention;

FIG. 5B illustrates an automobile console having a mount for coupling an electronic device according to one aspect of the present invention;

FIG. 6 illustrates a block diagram of a system for communicating voice mail messages using email according to one embodiment of the present invention;

FIG. 7 illustrates a flow chart for providing voice email messages according to one embodiment of the present invention;

FIG. 8 illustrates a flow diagram of a method for providing selected audio information to an electronic device according to one embodiment of the present invention; and

FIG. 9 illustrates an automobile console having a mount for an electronic device according to one embodiment of the present invention.

DETAILED DESCRIPTION

The conceptual groundwork for the present invention includes wirelessly communicating selective information to an electronic device. According to one aspect, a user may interact with the Internet to select information, such as audio information, and wirelessly communicate the selected information to an electronic device. The electronic device receives the information via a wireless communications network and processes the information accordingly. In a particularized form, a user may select information from an Internet website operable to allow selectivity of audio information such as songs, on-line radio stations, on-line broadcasts, streaming audio, or other selectable information. Upon selecting the audio information, information or data associated with the selected audio information is wirelessly communicated to an electronic device. The electronic device may then be used to process the selected audio information. In this manner, a user may receive selective audio information via a wireless electronic device.

In one form, the electronic device may be operable to communicate with an individual's automobile audio system.

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A user may select audio information utilizing a personal computer with access to a website operable to display selectable audio information. The selected audio information may then be wirelessly communicated to the electronic device associated with an automobile's audio system. Therefore, upon receiving the selected audio information, a user may access and play the received audio information utilizing the electronic device in association with the automobile's audio system.

The present invention is not limited to communicating only audio information. One skilled in the art can appreciate that other types of information, such as video, textual, etc. may be communicated utilizing the systems and methods disclosed herein without departing from the spirit and scope of the present invention. Additionally, it will be understood that information may be formatted in a plurality of ways at different phases of communication without losing the underlying content of the selected information. For example, an audio file may be formatted, segmented, compressed, modified, etc. for the purpose of providing or communicating the audio information. Therefore, the term "audio information" or "information" is used in a general sense to relate to audio information in all phases of communication.

FIG. 1 depicts a general system for wirelessly communicating selective information to an electronic device in accordance with one aspect of the present invention. The system, illustrated generally at 100, includes a digital engine 101 coupled to a communications engine 102. Communications engine 102 is remotely coupled to an electronic device 103. Digital engine 101 may be directly or indirectly coupled to storage device 105 operable to store information. Digital engine 101 maintains information or data associated with selected information in a digital format. The information may be stored within storage device 105 or other storage devices operable to maintain data or information associated with the selected information.

Communications engine 102 is communicatively coupled to digital engine 101 and operable to wirelessly communicate the selected information to electronic device 103. During operation, audio information may be selected by a user utilizing a personal computer or other devices operable to communicate with an information network. Digital engine 101 is operable to maintain information associated with the selected audio information. For example, the information could be several songs or titles configured as an audio file and formatted in a digital format such as an MP3 file, wave file, etc. The maintained information may also be a reference to a network location where an audio file may be stored, a network location where a network broadcast of audio information may be located, etc. or other network locations having information associated with the selected audio information. Therefore, digital engine 101 may maintain a plurality of different types of information or data associated with the selected audio information.

System 100, utilizing communication engine 102, may wirelessly communicate data or information associated with the selected audio information to electronic device 103 thereby providing wireless communication of selected information to an electronic device operable to receive wireless communications. In one embodiment, digital engine 101 may be used in association with an Internet website configured to provide access to selectable information. The Internet website operably associated with digital engine 101 allows a user to select information to be wirelessly communicated to electronic device 101 utilizing a network environment. The Internet website may include several different types of information related to audio information.

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FIG. 4, described in greater detail below, illustrates one embodiment of providing an Internet website for displaying selectable audio information. For example, the Internet website may include music and/or artist search engines, playlists, top 10 charts, artists by genre, and other information associated with audio information. A user may select information associated with the audio information and digital engine 101 can maintain the information or data associated with the selected information in a digital format. Communications engine 102 coupled to digital engine 101 may wirelessly communicate data associated with the selected audio information to electronic device 103. Therefore, a user may access and select audio information via an Internet website and wirelessly communicate the data to an electronic device. As such, system 100 advantageously allows for wireless communication of selected audio information to electronic devices that may be remotely located from a conventional terrestrial communication network.

Electronic device 105 may be configured in a plurality of ways for receiving wireless communication of selected audio information. In one embodiment, electronic device 105 may be operable as a component configured to receive a cellular signal comprising the selected information communicated by the communication engine. For example, a device having a cellular modem may be operable to receive the information at specified intervals. Upon receiving the information the electronic device may process the received information. Electronic devices are described in more detail below and may include a network radio, a modular device, an audio system, a personal digital assistant (PDA), a cellular phone, or other electronic devices operable to receive information wirelessly communicated by communication engine 102.

Communications engine 102 may be operable to wirelessly communicate selected information to electronic device 103 in a plurality of ways. The present invention advantageously allows for several different embodiments of wirelessly communicating selected audio information to electronic device 103 and is not limited to any specific configuration described below. Several different types or combinations of wireless communication may be realized by the present invention. Communications engine 102 may be operable to wirelessly communicate the selected information from an information network, such as the Internet, to an electronic device operable to receive wireless communications. In one embodiment, communications engine 102 may comprise a conduit to interface information with a wireless communication network. The conduit may configure the information located within the information network into a format operable to be transmitted via wireless communication.

For example, a wireless device may be operable to receive packets of information having a specific size and in a specific format. In such an embodiment, communications engine 102 could format the information into a desirable format for wirelessly communicating the information to electronic device 103. Several types of wireless communication may be used by communications engine 102 to communicate the selected information to an electronic device. Communications networks such as GSM, Digital Satellite communication, SB, Radio bands, DRC, SuperDRC or other systems or types of transmission such as TDMA, CDMA, spread spectrum, etc. or frequencies such as between about 1.7 GHz and 2.0 GHz may be realized by the present invention for communicating information or data representing the selected audio information to electronic device 103.

In one embodiment, the selective information may be communicated using a digital broadcast signal. Digital broadcast includes providing information via a signal such as AM, FM,

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and the like. Digital information may be included or encoded as a sub-carrier within the broadcast signal and received by electronic device **103**. A digital sub-carrier may include a selective bandwidth of frequencies for a specific radio station (i.e., 6 MHz for FM). The selective information may be wire-

lessly communicated to electronic device **103** utilizing a communication engine **102** operable to communicate the selective information via a digital FM signal. In this manner, selective information may be communicated within digital FM sub-carriers to an electronic device operable to receive the information. For example, a user may subscribe to communicate the information via an FM sub-carrier and receive the selective data through wireless communication via a specified FM sub-carrier.

In one embodiment, the selected information may be formatted and transmitted to achieve a desirable transmission rate. For example, conventional systems may transmit information at a speed of 10 kilobits per second. Therefore, for 1 megabyte of information to be communicated to an electronic device, a transmission time of approximately 800 seconds may be required. The present invention may allow for a relative increase in transmission speed by removing the requirement that information be communicated asynchronously to an electronic device. For example, conventional wireless communication utilizes a specified frequency to communicate information in two directions (i.e., cellular phones). As such, information is communicated across a channel in an asynchronous manner to provide a continuous audio signal to the recipient.

The present invention advantageously allows for signals to be transmitted to an electronic device in a less than asynchronous manner. For example, if a user selected a song to be wirelessly communicated to an electronic device, system **100** could communicate the information in a less than asynchronous manner allowing the selected information to be transmitted efficiently thereby decreasing the overall download time for the selected audio information. In one embodiment, the selected information may be compressed and transmitted across the same frequency but at different phases thereby allowing plural signals having different phases to be wirelessly communicated to an electronic device. Therefore, the electronic device may be operable to receive multiple phased signals and process the selective information accordingly.

In one embodiment, the information may be wirelessly communicated at a relatively slow transmission rate. For example, a user may schedule when the selected audio information may be used by electronic device **103**. The user may select several different audio tracks or songs to be transmitted to an electronic device associated with the user's vehicle such that the user can listen to the user selected audio information during the drive home at the end of a workday. Therefore, it may be desirable to utilize a slower transfer speed due to the extended amount of time available prior to actual use of the selected audio information. In this manner, communications networks having less or slower transfer rates may be used to wirelessly communicate the selected audio information to the electronic device.

In another embodiment, high-speed wireless communication networks may be used to communicate the selected audio information. For example, a user may want to listen to an Internet broadcast of an Internet radio station. Therefore, high-speed communication may be required to wirelessly communicate or stream the selected audio information to an electronic device. In another embodiment, a hybrid of wireless communication rates may be deployed depending on the requirements of the selected audio information and/or the electronic device. For example, the selected audio informa-

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tion may first be transmitted to the electronic device via high-speed communication until enough information has been wirelessly communicated and buffered into a memory device operably associated with the electronic device. Upon communication of a certain percentage of the selected audio information, slower communication speeds may then be used to communicate additional selected audio information.

Therefore, system **100** may be configured in a plurality of ways to communicate selected information to electronic device **103**. Digital engine **101** may be used to maintain data or information associated with the selected information and communication engine **102**, communicatively coupled to digital engine **101**, may wirelessly communicate selected information to electronic device **103**.

FIG. **2** illustrates a block diagram of a method of wirelessly communicating selected information to an electronic device. The method may be used in association with the system illustrated in FIG. **1** or other systems operable to utilize the method of FIG. **2**.

The method begins generally at step **200**. At step **201**, selectable audio information may be accessed utilizing a network communications device. For example, selectable audio information may be displayed at an Internet website accessible by a personal computer. In another embodiment, the selectable information may be accessed utilizing a wireless communications device such as, a cellular phone, a PDA device, or other devices operable to provide access to the selectable audio information.

Upon accessing the selectable information, the method proceeds to step **202** where a user can identify or select audio information to be wirelessly communicated to an electronic device. For example, a user may select an entire album to be wirelessly communicated to a PDA device.

Upon the user selecting the audio information, the method proceeds to step **203** where the method maintains information associated with the selected information. In one embodiment, the information may be an audio file, such as a wave file, and MP3 file, etc. representative of the selected audio information. In another embodiment, a network location that comprises a file representing the selected information may be maintained. Another example may include a network location of a network broadcast of audio information. Therefore, the method at step **203** may maintain several different types of information associated with the selected audio information.

Upon maintaining information or data associated with the selected information, the method proceeds to step **204** where the method wirelessly communicates information associated with the selected information to an electronic device. For example, if an audio file associated with the selected audio information was maintained, the method would communicate the audio file to the electronic device. In another embodiment, a link or network address broadcasting the selected audio information may be accessed and, at step **204**, wirelessly communicated to an electronic device. In another embodiment, a combination of different types of audio information may be wirelessly communicated to an electronic device. Upon transmitting the selected audio information, the method proceeds to step **205** where the method ends.

Selected audio information may be communicated in a plurality of ways as described above including communicating via a cellular communications network to an electronic device operable to receive cellularly-communicated signals. For example, the information may be selected from a website operable to display selectable information. Upon selecting the audio information, a data file representing the selected audio information may be wirelessly communicated to an electronic device thereby allowing a user to select audio infor-

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mation via the Internet and wirelessly communicate the information to an electronic device.

In some embodiments, the wireless communication to an electronic device may occur in an off-line environment. For example, a user may go "on-line" to access a website and select information and then go "off-line" or end the browsing session. The wireless communication may then occur while the user is off-line thereby removing the confines of using an active or on-line browsing environment (i.e. Internet radio broadcast, streaming audio, etc.) for accessing selected information. Therefore, the method of FIG. 2 allows for information, such as audio information, to be communicated from a network location such as a web site, to an electronic device "via" wireless communication. The present invention advantageously allows users to access and download information accessible by a network location to an electronic device operable to receive wireless communications thereby reducing the need for land lines, terrestrial communication networks, etc. for communicating selective information.

In one embodiment, the method of FIG. 2 may be deployed in association with an Internet website operable to display selectable links for downloading information. The information may include audio information such as MP3s, streaming audio, streaming. Internet broadcasts, etc. are selectable by a user and operable to be wirelessly communicated to an electronic device. By providing a user with a website of selectable audio information operable to be wireless communicated to an electronic device, a user may customize information communicated to an electronic device. In one embodiment, a user may communicate information to an electronic device that may not be owned by the user. For example the method of FIG. 2 could be modified to allow a user to wirelessly communicate audio information to a plurality of electronic devices that may or may not be owned by the user.

FIG. 3 illustrates an electronic device operable to receive selected audio information in accordance with the teachings of the present invention. Electronic device 300 includes a communication module 301 such as a transceiver coupled to storage medium 303 such as a high speed buffer, programmable memory, or other devices operable to store information. Electronic device 300 may also include processor 302 operably associated with communication module 301 and storage medium 303. Processor 302 may be operable to process wirelessly communicated selected information and in one embodiment may be integrated as part of communication module 301 of storage medium 303. In the same manner, as larger scale integration of electronic devices proliferate, communication module 301, processor 302, and storage medium 303 may be integrated into one communication component or device operable as electronic device 300.

Processor 302 may be operable using software that may be stored within storage medium 303. In one embodiment, software upgrades may be communicated to electronic device 300 via wireless communication allowing for efficient system upgrades for electronic device 300. Storage medium 303 may include one or several different types of storage devices. For example, storage medium 303 may include programmable gate arrays, ROM devices, RAM devices, EEPROMs, minidisks or other memory devices operable to store information.

During use, electronic device 300 receives wireless communications of selective information. The information may be transmitted via a wireless communications network and received by electronic device 300 via transceiver 301. Transceiver 301 may be operable to convert the received wireless communication signal into a desirable format and store the

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received information within storage medium 303. The received information may then be processed by electronic device 300.

In one embodiment, electronic device 300 may be operable as an audio player configured to play digital representations of music. For example, electronic device 300 may also include an MP3 player operable to process the received information into an audio signal. Therefore, electronic device 300 may be used to receive wirelessly communicated MP3 audio files and play these files using an MP3 player when desired. In another embodiment, electronic device 300 may be configured as a PDA wherein the PDA includes a web browser operable to wirelessly communicate with the Internet. The PDA device may include a user interface allowing a user to select information to be wirelessly communicated to electronic device 300.

By providing a website of selectable information, the PDA devices may provide an efficient embodiment for electronic device 300 in that it allows a user to access and select information using a wireless communication network and receive the selected information using the same or different wireless communication network. In yet another embodiment, electronic device 300 may be configured as a component operable to receive selective information via wireless communication and communicate the information to a second electronic device such as an automobile sound system, home stereo, etc.

For example, electronic device 300 may utilize transceiver 301 to receive wirelessly communicated information. Electronic device 300 may then be coupled to an automobile sound system using an interface and communicate the received information to the automobile sound system. In this manner, electronic device 300 may be used to provide the automobile sound system with audio files received via wireless communication.

In another embodiment, electronic device 300 may be operable to communicate the received audio information to an audio system via a localized communications-signaling network. One such network may include utilizing "Bluetooth" communication standard, used to provide communication between electronic devices in a proximal setting. In one embodiment, electronic device 300 may be integrated into an audio component such as a radio receiver. Electronic device 300 integrated into an audio component may be configured to process digital audio files wirelessly communicated to an audio component. In another embodiment, electronic device 300 may be operable to communicate with an analog receiver at a predetermined frequency.

For example, a specific frequency may be selected (i.e., 93.7 MHz) for communicating the wireless received selected information from electronic device 300 to a localized audio system. Electronic device 300 communication of the wirelessly received information allows a conventional receiver to receive the selected audio information. In one embodiment, the conventional receiver may be configured to receive a digital sub-carrier, on-carrier, or other within a specified frequency. Therefore, electronic device 300 may be operable to locally transmit the signal at a specific frequency thereby allowing the conventional receiver to receive the information. In another embodiment, electronic device 300 may be operable to scan plural bandwidths to receive the selective information. For example, transceiver 301 may be operable to receive selective information across several frequencies and process the received information accordingly.

In another embodiment, electronic device 300 may be operable to scan several frequencies to obtain the desirable information. For example, a user may select several Internet broadcasts comprised of streaming audio information. There-

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fore, the information may be transmitted across several wireless frequencies receivable by electronic device 300. Electronic device 300 may then be operable to allow a user to scan wirelessly communicated Internet broadcast signals thereby providing a user selected virtual broadcast radio network. In another embodiment, electronic device 300 may include a user interface operable to communicate with an Internet website operable to display selectable audio information. The Internet website may be configured as a user-preferred environment displaying a users selected audio information. Internet broadcast selections, streaming audio selections, etc.

With a display device for displaying a Website having selectable information, electronic device 300 may allow a user to select audio information via a user interface and receive the selected information via wireless communication thereby providing a customizable WebRadio device for the user. In another embodiment, electronic device 300 may be a modular device configured to be coupled to, for example, a portion of a cars interior. For example, electronic device 300 may be mounted to a portion of a car's console thereby providing a removably coupled electronic device operable to wirelessly receive selected audio information. As a removable device, electronic device 300 may also be coupled to a home audio system, a portable radio system or other systems thereby providing a versatile electronic device operable to receive wirelessly communicated selected audio information.

In another embodiment, electronic device 300 may be operable as a PDA and/or a cellular phone that may be mounted to an automobile's console. Electronic device 300 may then integrate with a user's automobile to provide an all-encompassing communications device. For example, electronic device 300 configured as a PDA and cellular phone may allow for communication with a user's email account, voice mail account, the Internet, as well as allowing for the receipt of selected audio information via wireless communication. Electronic device 300 may be operable in a hands-free mode allowing a user to maintain safe driving fundamentals. During use, electronic device 300 may be processing selective audio information for communicating with an automobile audio system and may further be operating to receive incoming cellular calls.

Electronic device 300 may be set-up by the user to pause the music being played and allow the received cellular call to be communicated either via an independent speaker or utilizing the automobiles "audio system." Additionally, electronic device 300 may be operable to adjust the listening level of an automobile's audio system, it may play received voice mail messages, allow a user to view the Internet, etc. In one embodiment, electronic device 300 may be operable as a dual mode electronic device capable of receiving both digital and analog wireless communication signals. In this manner, electronic devices may efficiently utilize available bandwidth for receiving selected information from a communications engine. For example, transceiver 301 may be a wireless communications modem operable to receive digital or analog signals.

FIG. 4 illustrates a graphical user interface (GUI) for displaying selectable audio information according to one aspect of the present invention. The GUI may be operable with a computer system, cellular device, PDA, or other electronic devices or systems operable to display the GUI of FIG. 4. The GUI, shown generally at 400, may be displayed using a conventional web browser 402 such as Microsoft®. Internet Explorer, a WAP browser, or other browsers operable to display the audio information. Browser 402 includes browser functions, shown collectively at 403, for navigating a network such as the Internet or an intranet. Homepage 401 may be

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displayed using browser 402 and may include several functions, features, information, etc. related to audio information. Home page 401 may be developed using several different types of programming (i.e., HTML, XML, Java, etc.) used to developing a network location or website.

The present invention is not limited to any one specific type of software and may be realized in plurality of ways as can be appreciated by those skilled in the art. Homepage 401 may also include login region 410 allowing a user to log into homepage 401 and display a user-preferred environment. For example, a user may want Radio Dial 412 to appear when a user logs into homepage 401. In another embodiment, a user may want to view a current playlist selected by the user or the status of wirelessly communicated playlist. A user may also provide demographic information allowing advertisers to access the demographic information and provide advertisements based upon the demographic information. For example, an advertiser may want to target Hispanic females in the 21-25 year old age group.

Through providing demographic information to advertisers, when a user logs into homepage 401 selective advertising can be "targeted" for a group of users. Homepage 401 may also include several tabs for efficiently navigating homepage 401. Library tab 405 may be provided to allow a user to browse available audio information that may be presented by title, genre, artist, decade, culture, etc. Store tab 407 may also be provided for locating items available for purchase such as CDs, PDA devices, MP3 players, wireless communication hardware, interfaces, software or other types of products that may be purchased while on-line. Chat tab 408 may also be provided allowing a user to chat with other users of home page 401. For example, a guest musical artist may be available to chat with visitors of home page 401 via a chat page associated with chat tab 408. Home page 401 may also include contest tab 409 for displaying current contests, prizes, and/or winners.

Radio tab 406 may also be provided for displaying audio information. For example, radio tab 406 may display a collective menu 411 of selectable functions or features associated with audio information. Top ten lists may be provided to a user based on several different billboard polls or genres. A search engine may be provided allowing a user to search for a specific type of audio information such as an artist, song title, and genre. Internet radio station, etc. In one embodiment, a user may input the lyrics to a song within the search engine. As such, the search engine may locate several different songs having the desirable lyrics and allow a user to select the search results. A user may also use a select a device feature that allows a user to select a destination device for communicating selected audio information. For example, a user may want to communicate a playlist to several different devices such as a PDA, a home computer system, a work computer system, etc.

As such, a user can communicate selective information to several devices without having to download the information separately for each device. A send a friend link may also be provided allowing a user to send selective audio information to a friend's electronic device. A user may also join a group comprised of individuals that select a certain genre of music to be communicated to the user's electronic device. For example, a user may want to join a group that plays only 50s swing music. As such, the user could communicate the group's selected songs to the user's electronic device. A user may also utilize an email account provided by homepage 401 allowing a user to correspond with others via email. A user may also access a list of guest DJs that may provide playlists of songs chosen by the guest DJ and selectable by a user.

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In one embodiment, a user's radio dial **412** may be provided when a registered user logs into homepage **401**. As such, radio dial **412** may include several functional buttons similar to conventional systems such as a volume control and a station control. However, radio dial **412** surpasses the limitations of conventional systems through providing a programmable radio dial of user customized audio information. Radio dial **412** includes several stations that may be programmed using program interface **413**. The preset stations may include several different types of user customized preset information such as user selected playlists, Internet broadcast stations, top lists, group playlists, artist-selected lists, on-line radio station, conventional radio stations, Internet phone, cellular phone, etc. and other functions, features, or information associated with audio information.

Radio dial **412** may also be displayed as a separate user interface and in some embodiments, does not require a "browsing" environment to view radio dial **412**. For example, an electronic device, such as a PDA, having a display may graphically present radio dial **412** to a user. One example may be using electronic device in association with an automobile audio system. Electronic device may display radio dial **412** and may allow a user to navigate, modify, select, adjust volume, access daytimer, access phone lists, etc. or perform other functions while the electronic device is used in association with an automobile sound system. Therefore, radio dial **412** may be operable as an application for use with several different types of electronic devices (i.e., computer systems, portable computing devices, cellular phones, etc.) operable to display radio dial **412** and in some embodiments may be wirelessly communicated to an electronic device.

In another embodiment, homepage **401** may allow a user to select when to download the information to an electronic device. For example, a user may want to listen to a certain genre of music at a specific time of day thereby allowing a user to select the information. As such, a user may select a different playlist for every day of the week thereby allowing a user to listen to different songs on different days of the week. The user can further identify when the selected playlist should be available for listening. For example, if a user wanted to listen to "playlist #1" on Monday morning during the drive into work between 8:00 am and 9:00 am, the user would enter the time and the day "playlist #1" would be available for listening. In this manner, the playlist may be communicated to the electronic device thereby allowing a user to listen to selective audio information at a desirable time.

FIG. 5A illustrates a portable radio system having a mount for an electronic device according to one embodiment of the present invention. Portable radio **500** includes a mount **501** operable to receive electronic device **502**. Mount **501** may include a connector operable to provide communications and power to electronic device **502**. During use, electronic device **502** when mounted within portable radio **500** communicates with portable radio to provide remotely received selective audio information. In one embodiment, electronic device **502** may include a user interface allowing a user to access the Internet. Therefore, selective audio information located on the Internet may be accessed by the user and remotely communicated to electronic device **502** coupled to portable radio **500**.

In another embodiment, portable radio **500** may include memory operably located within for storing downloaded information. For example, portable radio **500** may include 32 MB of RAM allowing electronic device **502** to receive selective information and download the selective information to memory located within portable radio **500**. In this manner, the

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downloaded music may be operable to be played within portable radio **500** while allowing electronic device to be removed from portable radio **500**. Therefore, portable radio **500** including electronic device **502** allows a user to communicate selected audio information to portable radio **500**.

FIG. 5B illustrates automobile console having a mount for coupling an electronic device according to one aspect of the present invention. Console **510** includes mount **511** operable to receive electronic device **512**. Mount **511** may be located in many different locations within an automobile such as coupled to a sun visor, center console, dashboard, floorboard, etc. Mount **511** allows the user to couple electronic device **512** to the automobile and provide an interface for communication between electronic device **512** and the automobile audio system. Mount **511** may also include a power connection that allows electronic device **512** to use the automobiles power during use. The power connection may also be in association with a recharging circuit operable to recharge a power supply within the electronic device. During operation, electronic device **512** coupled to mount **511** may receive selected audio information via wireless communication and communicate the selective information to the automobile audio system.

In one embodiment, the automobile may include memory operable associated with the automobile for storing information. The memory may be used in association with mount **511** and electronic device **512** to store the selected audio information. In this manner, voluminous audio information can be stored within the memory allowing electronic device **512** to receive additional information. In one embodiment, a mount may be provided for a home audio system (not shown) for downloading selected audio information for use with a home audio system. For example, a mount device may be coupled to a home stereo system such that the upon placing an electronic device such as electronic device **500** within the mount, selected audio information may be communicated to the home audio system thereby allowing a home audio system to be used in association with an electronic device.

FIG. 6 illustrates a block diagram of a system for communicating voice mail messages using email according to one embodiment of the present invention. The system, indicated generally at **600**, includes email server **601** coupled to a voice mail storage device **602**. System **600** further includes a computer system or network terminal **603** such as a computer coupled to network **604**. System **600** further includes mount **605** for mounting electronic device **606** for hardwire communication of information. Device **606** may also communicate with network **604** using a wirelessly communication network operably associated with network **604** and coupled, for example, via tower **607**.

During operation, system **600** communicates voice mail messages to a user utilizing email server **601**. For example, if a user receives a voice mail message, email server **601** would be notified and a voice mail message would be sent to the user's email account in the form of an email message. For example, a voice mail message would be sent to a user's email account within intranet **604** in the form of an audio file as an attachment to the email. Upon receiving the email, a user may click on the audio file representing the voice mail message to hear the message left by a caller.

In one embodiment, a user may be accessing the Internet via a phone line and, as such, be unable to receive notification that a voice mail message has been received. System **600** would receive the voice mail message and send an email comprising the voice mail message to the user email account. In this manner, a user can remain connected to the network and receive voice mail without having to log off or disconnect

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from the Internet. In one embodiment, a user may receive the voice mail message via a portable electronic device. For example, a user may be using remote device 605 operable to receive wirelessly communicated information. System 600 would receive the voice mail message and forward the voice mail message to a user's portable electronic device 606. In this manner, a user may be capable of receiving voice emails at remote locations.

In another embodiment, a user may subscribe to use an Internet email account that may be operably associated with system 600. Utilizing an Internet email account may allow a user the flexibility to check voice email messages from any location in the world. For example, a user may access a "Hotmail" email account while traveling on business in a foreign country. The user, upon gaining access to the "Hotmail" account, would be able to listen to voice mail messages sent to the user via the "Hotmail" email account. Through utilizing an email account to receive voice mail messages, a user may be afforded great flexibility in communicating voice mail messages. For example, a user may be able to forward a voice mail message received in the form of an email to one or a plurality of other email accounts. In this manner, a voice email message may be sent efficiently to other email users.

For example, a user may maintain a distribution list of individuals working on a particular project that may have a need to hear certain voice email messages. In this manner, a user may efficiently disseminate information to other individuals while adding additional textual information to the body of the email allowing a user to comment on the original voice email message. In another embodiment, a user may forward a received voice email message to another account operable to receive forwarded voice email messages. For example, system 600 may be operable to receive an email message having a voice mail message as an attachment. The system would then be operable to forward the voice mail message to specified phone number, separate email account, and/or voice mail account, etc. thereby providing a user flexibility in receiving voice email.

In one embodiment, a user may utilize an email account to establish an answering service for voice mails. For example, a user's telephone number may be operable with an email account to provide an answering service. A user may record a message for a specified phone number or extension and, upon receiving an incoming call, the recorded message may be played back to incoming the call's initiator. System 600 would then forward the received voicemail message via an email account to the user. For example, a user may have an account set up at a residence for receiving voicemail messages via a user-defined email account. The user could then forward all received voice mails from the home account to an email account at a place of work. Therefore, the user may have complete access to received voicemail messages. In the same manner, a user could set up their work phone number to forward a voicemail message to the user's home email account thereby allowing a user to receive a voicemail at a home email account. Therefore, system 600 may be operable in a plurality of ways to provide email messages comprised of voicemail messages received via a voice mail or email account.

FIG. 7 illustrates a flow chart for providing voice email messages according to one embodiment of the present invention. The method begins at step 701 where a voice mail message is left for a user. The message could be at a residence, place of business, etc. The method then proceeds to step 702 where the message may be stored as an audio file within a database operable to store a file comprised of the voice mail message. Upon storing the file, the method proceeds to step

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703 where an electronic mail message may be generated. The electronic mail message may be addressed to the recipient of the voice mail message. The method then proceeds to step 704 where the audio file representing the voice mail message is attached to the electronic message.

Upon attaching the audio file, the method then proceeds to step 705 where the email message may be sent to the email address. Upon sending the email message the method proceeds to step 706 where the method determines if the email message should be sent to a wireless electronic device. If the message is not to be sent to a wireless device, the method proceeds to step 720 where the method ends. If the message is to be sent to a wireless electronic device, the method proceeds to step 707 where a signal may be sent to the wireless electronic device and at step 708 an indication is provided to the electronic device indicating that a voicemail message has been received via a user's email account. The method may then proceed to step 709 where the user decides whether or not to listen to the voice email message. If the user decides not to listen to the voice email message, the method may proceed to step 710 where the method ends. If the user decides to listen to the voice email message, the method proceeds to step 711 where a request may be sent by the electronic device requesting the voice email message be forwarded to the user's electronic device.

At step 712, the voicemail message may be sent to the user's electronic device. Upon forwarding the voicemail message to the user the method may proceed to step 720 where the method ends. As such, FIG. 7 depicts one method of providing an email message comprised of a voice mail message. Certainly, other methods may be deployed as advancements in technology and are made without departing for the spirit and scope of the present invention.

FIG. 8 illustrates a flow diagram of a method for providing selected audio information to an electronic device according to one embodiment of the present invention. The method begins at step 800 where a user accesses a webpage via the Internet. The webpage may be a home page illustrated in FIG. 4 or other web pages operable to display selectable references to audio information. The method proceeds to step 801 where a user selects desirable audio information. For example, a user may select a single song, a plurality different songs, an entire album, a broadcast station, streaming audio, etc. or other selectable audio information. Upon the user selecting a reference to audio information, the method may proceed to step 802 where a playlist may be created that represents the user's selected audio information.

The playlist may be variable in size and comprised of a plurality of different types of available audio information. Upon creating a playlist, the method may proceed to step 803 where information associated with the playlist is obtained. For example, a list of network or URL locations comprised of the desirable audio information may be obtained. In this manner, desirable audio information may be obtained from many different sources such as URLs, network addresses, hard drives, databases comprised of audio information, etc. The sources may be accessed to obtain the selected audio information.

Upon obtaining data associated with the customized playlist, the method may proceed to step 804 where the user is prompted for a destination for the playlist. For example, a user may want to communicate the selected audio information to a remote electronic device, an automobile audio system, a home stereo system, a home computer, an electronic device coupled to a home network or computer system, etc. or other locations or devices operable to receive the selected audio information. In one embodiment, a user may select a

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device owned by a friend to accept the selected audio information. For example, a husband may want to send a romantic playlist to his wife on their anniversary. In this situation, the husband would select his wife's electronic device as the receiving device for the selected audio information.

Upon selecting a device, the method proceeds to step 805 where the method determines the destination of the selected audio information. If the information is to be sent to a device via a wire line connection, the method proceeds to step 813 where playlist data is sent to a user via a wire line connection. The method may then proceed to step 814 where the playlist is executed at the device. If the information is to be sent to a device requiring wireless communication, the method proceeds to step 806 where the information is formatted for communicating the information to a wireless electronic device. For example, a wireless PDA device may be selected as a destination device for the selected audio information. The PDA device may include an audio player, such as an MP3 player operable to play or execute MP3 audio files. In such an embodiment, the method could format the information such that the information may be wirelessly communicated and subsequently played by the MP3 player.

Upon formatting the information, the method may then proceed to step 807 where the audio information is wirelessly communicated to the selected device. In some embodiments, the device may be operable to receive a limited amount of information based upon storage capacity of the device (i.e., 16 MB). In such a case, the method may divide the information into component parts and periodically communicate the component parts, such as packets, to the electronic device. Upon communicating the audio information, the method may then proceed to step 808 where the signal may be received by the destination or electronic device.

The method may then proceed to step 809 where the method determines if all of the audio information has been received. For example, if 16 MB or 32 MB of selected audio information was initially transmitted due to capacity limitations of the selected device, the method may query the selected device to determine if capacity is available. If available memory exists, the method may proceed to step 807 where the method may communicate additional audio information based upon the amount of available memory. The method repeats until all of the selected audio information has been transmitted.

Upon communicating the selected information, the method may proceed to step 810 where the playlist may be executed. For example, a user may select a continuous communication of selected audio information (e.g., several hours of music. Internet broadcast, etc.). As such, the method may continuously play or execute the received audio information. In another embodiment, the method may proceed to step 811 where the method may store or buffer the received information until it is desirable to execute the received selected audio information. As such, upon executing the selected audio information, the method may proceed to step 809 where the method may repeat. In one embodiment, a user may elect to download a broadcast of an on-line radio station. For example, a user may want to listen to a radio station located in a remote location wherein conventional radio receivers could not receive the desired broadcast. For example, a person living in Houston, Tex. may not be able to receive a radio broadcast signal from a radio station in Seattle, Wash. utilizing a conventional radio receiver.

In accordance with the teachings of the present invention, a user may select an on-line broadcast or radio station as all or a part of the selected audio information. The user may then

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receive radio broadcasts without having to use a home computer system or conventional radio receiver.

At step 804, a user may select a device that does not require remote communication of information. For example, a user may elect to communicate the selected audio information to device, such as a personal computer, PDA device, MP3 player, etc. coupled via a network connection to the Internet or an Intranet. The user may receive the selected playlist at the determined device for eventual playing. In one embodiment, a user may select a plurality of devices as destination devices for receiving downloads of the selected audio information. For example, the user may want to download the information to a home stereo system, a PDA device, and an automobile stereo. As such, the selected information may be communicated to more than one destination device. In addition, the format of the download may match or conform to the selected destination device(s).

The present invention may be configured in a plurality of ways to communicate desirable audio information to users by allowing users to select desirable audio information and transmitting the desirable audio information to a specified destination thereby allowing a user to receive on-demand customized audio information. Moreover, the download may occur in an off-line environment, allowing a user to enjoy the selected audio information accessed on-line without having to be on-line or utilizing a browsing environment. In one embodiment of the present invention, the method of FIG. 8 may be modified to allow a user to select a "user group" for receiving customized audio information. For example, a "user group" may include users that prefer contemporary jazz wherein a user may request a certain song. Therefore, a virtual request line may be designed for a specific genre of music allowing "members" to transmit audio information to the "group".

In another embodiment of the present invention, the method may be modified to allow a user to select a specific genre to be transmitted to the users device. For example, a user may elect to have random country and western music transmitted to a destination device. The user could efficiently create a radio station format and have the format received at a destination device.

In a further embodiment, a user may select a group of genres to be downloaded to a desirable device. As such, the method may be modified to allow a user to select several different genres to download random music within the specified genres. In another embodiment, a user may elect to download the same music as another individual. For example, a user may want to download the same music as their best friend. Therefore the user could elect to download the same music as their friend or group of friends. In another example, a user may want to listen to the same music that an artist listens to on a specific weekday of evening. For example, a user may want to listen to the same music that Barry White listens to on a Saturday night.

Therefore, the user may select "Barry White's" Saturday night playlist and receive the same playlist Barry White receives on Saturday night. In another embodiment, the method of FIG. 8 may be modified to allow a user to manipulate song post download. For example, a user may want to store, delete, replay, copy, forward, etc. received audio information. Therefore, the method of FIG. 4 may be modified such that a user can manipulate or process the received audio information in a plurality of ways. In one embodiment of the present invention, an on-line radio station may be provided. For example, the radio station may be created for transmitting audio or on-line broadcasts. The on-line broadcasters or hosts

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may create their own format for broadcast. For example, an on-line radio station may be provided that transmits only children's songs.

Prior to conception of the present invention, conventional radio stations were monetarily limited to be capable of transmitting music such as children's songs to conventional radio receivers. The present invention, by providing a medium for transmitting selectable audio information, enables the existence of on-line broadcasting with little or no overhead cost for a host. A user may select an on-line broadcast for on-line or off-line delivery. In another embodiment, on-line broadcast of audio information representing books or novels may be provided to individuals such as the visually impaired. For example, an on-line broadcast station may provide several hours of audio information broadcast representing books or novels to be broadcast with very little overhead.

FIG. 9 illustrates an automobile console having a mount for an electronic device according to one embodiment of the present invention. Console 900 includes a conventional audio system 901 comprised of a receiver 902 and CD player 903. Interface 904 may be coupled to audio system 901 via plug 905 and cable 908, which may be coupled to an auxiliary line into audio system 901. Interface 904 may also include contact 906 for contacting electronic device 907. Cable 908 may be a multiple conductive cable for providing power from the automobiles power system via a protection circuit or fuse 909 for powering electronic device 907. In one embodiment, interface 904 may be operable to recharge electronic device 907 utilizing a power source associated with an automobile.

During operation, electronic device 907 may be mounted within interface 904. Electronic device 907 may also be powered or recharged via power line 910 and communicate with the systems audio system via interface cable or bus line 911. Audio information communicated to electronic device 907 may be transferred to audio system 901 such that a user may listen to selected audio information. For example, a user may have previously selected a plurality of audio files to be transmitted to electronic device 907. Electronic device 907 may communicate the selected audio information to the automobiles audio system that utilizes interface 901 thereby allowing the user to listen to selected audio information. In one embodiment, cable 908 may be custom-installed to audio system 901. For example, the cable may be coupled to an auxiliary line for the system's radio or may be coupled to CD player line 912.

In another embodiment, a radio manufacturer may provide interface 904 as a standard interface integrated into the audio system, thereby allowing communication between electronic device 907, audio system 901 and/or console 900. Electronic device 907 may include a plurality of different types of devices. For example, electronic device 907 may include a PDA device operable to store selected audio information. The information may be either remotely downloaded using an Internet web browser and wireless communication to the PDA device. In another embodiment, selected audio information may be communicated to a PDA device via a hard wire coupled to a computer system interfacing with the Internet. In another embodiment, electronic device 907 may include an audio file player operable to play audio files such as MP3s, etc.

The audio files may be remotely or locally communicated to electronic device 907 and upon coupling to audio system 901, the audio files may be transmitted to audio system 901 in a form receivable by audio system 901. Although the disclosed embodiments have been described in detail, it should

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be understood that various changes, substitutions and alterations can be made to the embodiments without departing from their spirit and scope.

The benefits, advantages, solutions to problems, and any element(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as a critical, required, or essential feature or element of the present invention. Accordingly, the present invention is not intended to be limited to the specific form set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents, as can be reasonably included within the spirit and scope of the invention as provided by the claims below.

While the present invention has been described with respect to a limited number of embodiments, those skilled in the art will appreciate numerous modifications and variations therefrom. It is intended that the appended claims cover all such modifications and variations as fall within the true spirit and scope of this present invention.

What is claimed is:

1. A method for content delivery, comprising:

maintaining a network resource that is accessible to a remote electronic device, the remote electronic device being capable of wireless communication, wherein the network resource facilitates access to a selectable piece of media content;

storing a first collection of instructions on at least one storage device, wherein the first collection of instructions are executable by a processor of a computing device to present a graphical user interface for the network resource; and

storing a different collection of instructions on the at least one storage device, wherein the different collection of instructions are executable by a processor of the remote electronic device: (1) to access a website; (2) to recognize selection of an icon presented on a display of the remote electronic device, wherein the icon is associated with content that is deliverable as a streaming media; (3) to present an other icon comprising the word "store" on the display; (4) to locally store a playlist; and (5) to switch between a set of communication rates at which the remote electronic device can wirelessly receive a first portion and a second portion of the content, wherein the set of communication rates comprise at least a first data rate and a second data rate that is slower than the first data rate.

2. The method of claim 1, wherein one of the set of communication rates is 10 Kbps.

3. The method of claim 1, further comprising communicating information from a network location for use by the remote electronic device via a computing device that already has the first collection of instructions and is operable to execute the first collection of instructions in connection with accessing the network resource.

4. The method of claim 3, further comprising communicating a software upgrade for the remote electronic device.

5. The method of claim 1, further comprising:

maintaining a resource that can be accessed in response to a selection of the other icon comprising the word "store" on the display of the remote electronic device; and making a piece of software available at the resource, wherein the piece of software includes instructions executable by the processor of the remote electronic device.

6. The method of claim 1, further comprising providing a copy of the first collection of instructions to the remote electronic device.

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7. The method of claim 1, further comprising providing a copy of the different collection of instructions to the remote electronic device.

8. The method of claim 1, wherein the content is segmented into a plurality of portions.

9. The method of claim 8, wherein the different collection of instructions are further executable by the processor of the remote electronic device to receive communication of the plurality of segments in connection with outputting the content.

10. The method of claim 1, wherein the different collection of instructions are further executable by the processor of the remote electronic device to receive at least one portion of the content in a compressed format and to process the at least one portion.

11. A method for content delivery, comprising:
maintaining a network resource that is accessible to a cellular telephone, the cellular telephone being capable of wireless communication, wherein the network resource facilitates access to media content;

storing a collection of instructions on at least one storage device, wherein the collection of instructions are executable by a processor of the cellular telephone:

(1) to present a graphical user interface on a display of the cellular telephone;

(2) to recognize selection of an icon presented on the display, wherein the icon is associated with content that is deliverable as a streaming media; and

(3) to direct the processor in the cellular telephone to switch between a set of communication rates at which the cellular telephone receives a first portion and a second portion of the media content, wherein the set of communication rates comprises at least a first data rate and a second data rate that is slower than the first data rate.

12. The method of claim 11, wherein a portion of the collection of instructions are utilized at the cellular telephone to switch between at least two of the set of communication rates.

13. The method of claim 11,
wherein a portion of the collection of instructions are executed by the processor of the cellular telephone to direct the processor in the cellular telephone to present an other icon comprising the word "store" on the display;

to access a network based resource in response to a selection of the other icon comprising the word "store"; and
to select a piece of software available at the network based resource, wherein the piece of software includes instructions executable by the processor of the cellular telephone.

14. The method of claim 11, further comprising providing a software upgrade to the cellular telephone.

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15. The method of claim 11, wherein switching between the first data rate and the second data rate is based on an amount of the media content that has been buffered in the cellular telephone.

16. A system for content delivery, comprising:

a portable device having a display, a local rechargeable battery, a wireless communication system, and a processor;

a physical interface of the portable device, the physical interface configured to connect to an interface system that includes a cable having multiple conductive elements, wherein the physical interface is designed such that a different electronic device can be communicatively coupled with the physical interface of the portable device using the interface system in a manner that allows the different electronic device to recharge the local rechargeable battery using at least one of the multiple conductive elements and to communicate with the portable device using at least one other of the multiple conductive elements; and

a computer-readable medium having stored instructions that when executed are operable to cause the processor: (1) to present an icon on the display, the icon associated with content that is deliverable as streaming media; (2) to recognize a selection of the icon; and (3) to switch between a set of communication rates at which the portable device receives a first portion and a second portion of the content, wherein the set of communication rates comprise at least a first data rate and a second data rate that is slower than the first data rate.

17. The system of claim 16, further comprising the interface system and the different electronic device, wherein at least a portion of the different electronic device is a component of an automobile sound system and the interface system utilizes at least one bus to communicatively couple with the different electronic device.

18. The system of claim 16, further comprising the interface system and the different electronic device, wherein at least a portion of the different electronic device is a component of a stereo system and the interface system utilizes at least one bus to communicatively couple with the different electronic device.

19. The system of claim 16, wherein the stored instructions are further operable to cause the processor: (1) to obtain a listing of network locations at which to access the streaming media; and (2) to cause a first of the network locations to be accessed to facilitate a streaming delivery of the streaming media.

20. The system of claim 16, wherein the content is selected from a group consisting of a song and a video.

* * * * *

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that this brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B). The brief contains 13,982 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Federal Circuit Rule 32(b).

The undersigned also hereby certifies that this brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). The brief has been prepared in a proportionally spaced typeface using Microsoft Office Word 2010 in 14-point Garamond type style.

As permitted by Federal Rule of Appellate Procedure 32(a)(7)(C)(i), the undersigned has relied upon the word count of this word processing system in preparing this certificate.

Dated: October 27, 2015

By: /s/Emily E. Niles
Counsel for Patent Owner-Appellant

PROOF OF SERVICE

I hereby certify that on October 27, 2015, the foregoing document, OPENING BRIEF FOR APPELLANT AFFINITY LABS OF TEXAS, LLC, was filed with the Clerk of the Court for the United States Court of Appeals for the Federal Circuit using the appellate CM/ECF system which pursuant to Federal Rule of Appellate Procedure 25(c)(2) and Federal Circuit ECF-6(A) constitutes service on all parties represented by attorneys who have registered for the CM/ECF system, and that a copy was served on counsel of record for Petitioners' Appellees via e-mail:

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